Welcome to the Utility Financing Workshop

FEDERAL ENERGY MANAGEMENT PROGRAM

Introduction

Workshop Goals

- Identify existing utility contract vehicles.
- Recognize distinctions between utility contract vehicles.
- Identify key areas of a utility contract.

EPACT Goals

Agencies shall:

- Reduce energy consumption by 20% by the year 2000 using a 1985 baseline

- Install ALL energy and water conservation measures with payback of less than 10 years.

Executive Order 12902

Amends EPACT, calling for a 30% reduction in energy consumption by 2005 measured against a 1985 baseline.

Executive Order 12902

- Calls for significant increase in the use of solar and other renewable energy sources.
- Directs agencies to utilize innovative financing and contractual mechanisms to meet goals and requirements.

Overview

At the end of this module, you should be able to:

- Define utility incentive programs and cite who is eligible to use them.
- Describe the evolution of utility programs.
- Cite the legislation that enables utility programs.
- State the benefits and drawbacks of utility contracts.

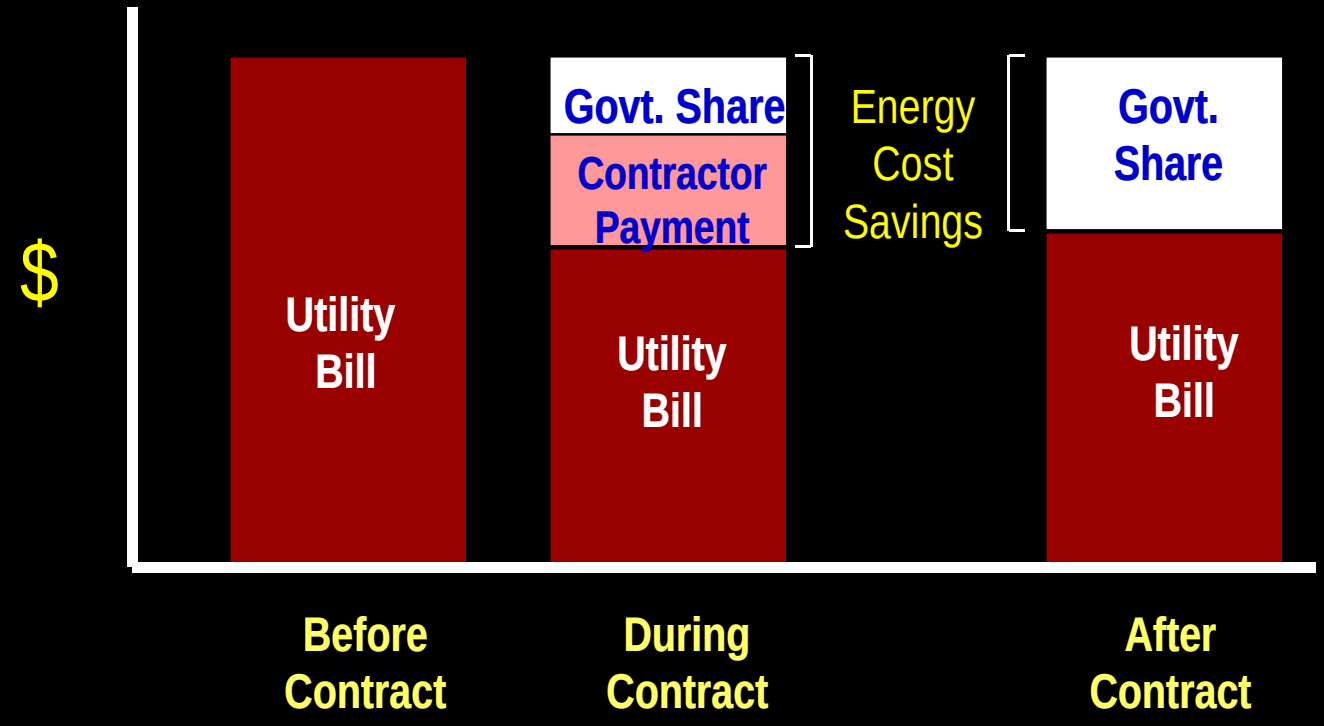
Definition

Utility Incentive Programs:

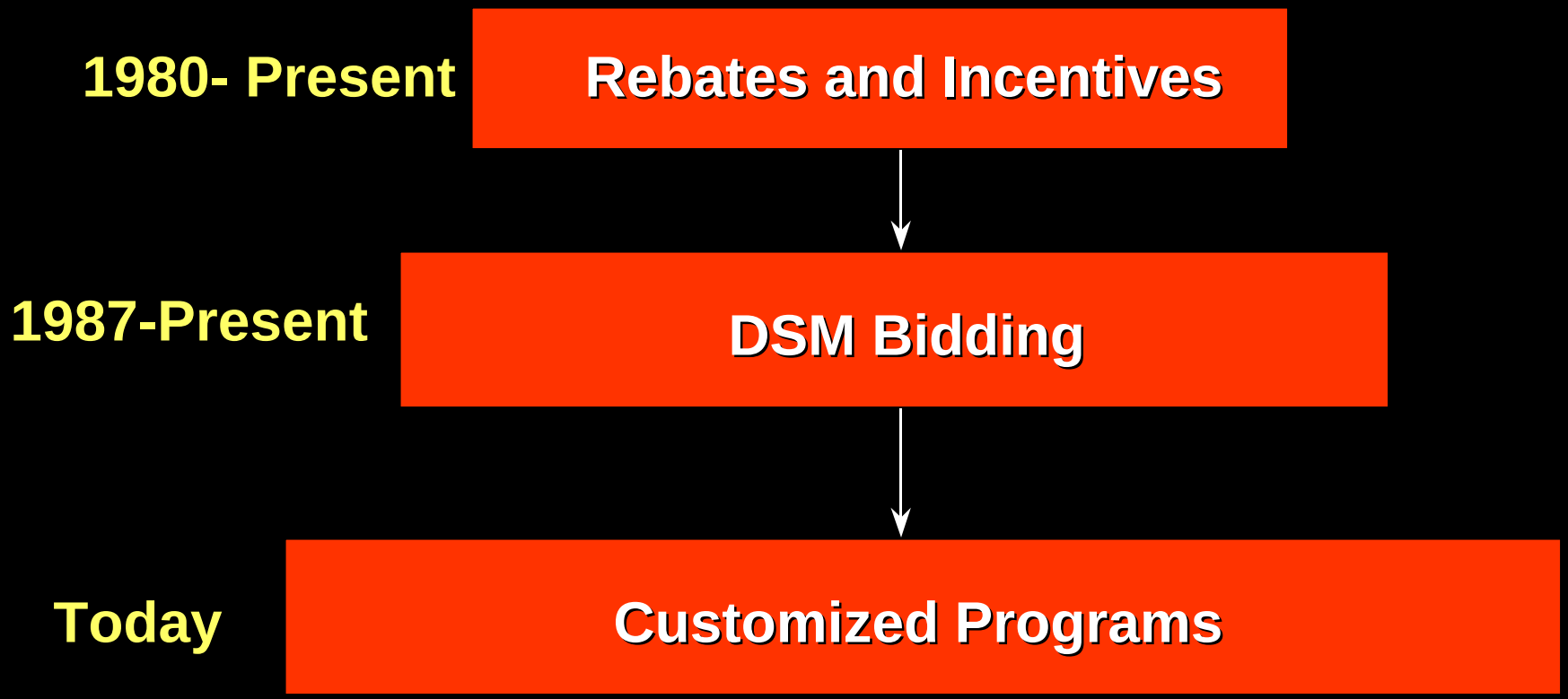
Programs, ranging from rebates to full turnkey project implementation, offered by utilities to assist in implementing energy conservation projects.

Utility Incentive Programs Reallocate the Government's Utility Bill

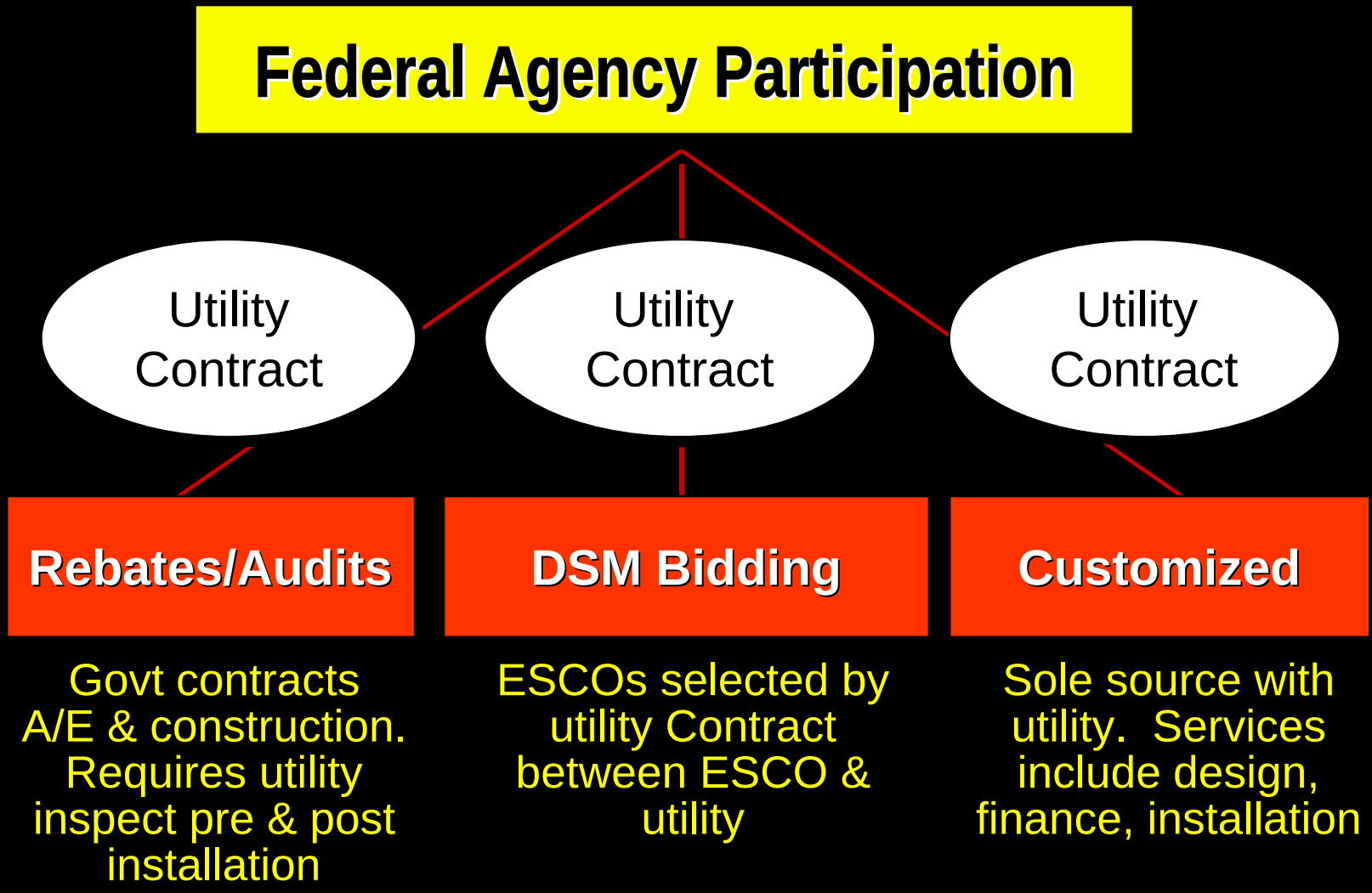
- ✓ Pay a lower utility bill
- ✓ Pay for equipment
- ✓ Achieve cost savings for the government



Evolution of Utility Programs



Utility Incentive Programs



Rebates & Incentive Programs

Utility + Agency = Project

Utility subsidized purchase of energy-efficient equipment

DSM Bidding Programs

Utility + ESCO + Agency = Project

Utility contracts with ESCO

ESCO contracts with Agency

Customized Programs

Utility + Agency (Site) = Project

AWC
BOA
Agency Model
Site Specific Agreement

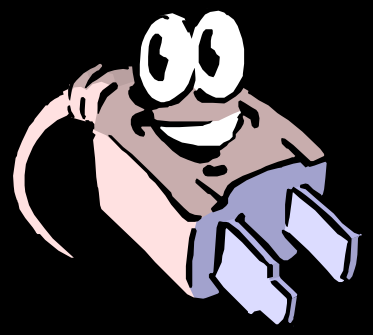
Utility Programs

Customized Programs offer:

- **site specific strategies**
- **variety of services**
- **flexibility**

Utility Restructuring Impacts

- Elimination & Reduction of Programs
- Customer Retention
- Expansion of Services
- Energy Service Company (ESCO) Formation
- Green Power & Revenue Neutral Utility Planning



Elimination & Reduction of Programs

- Cost Reduction
- More competition
- Reduction of R&D

Customer Retention

- Long term contracts
- Marketing Efforts
- Proactive approach to customer

Expansion of Services

Utilities are offering more services, such as:

- Audits
- Financing
- Measurement & Verification

ESCO Formation

Utilities are spinning off into unregulated subsidiaries offering:

- **Offer a wide variety of services**
- **A new business approach**

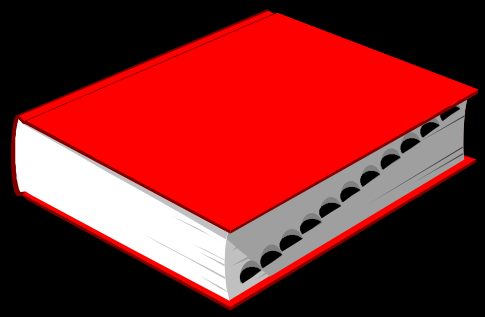
Privatization

Utilities have become interested in owning & operating on-site distribution systems traditionally maintained by federal facilities.

Definition

Utility System Privatization:

Transferring the ownership, operations, and maintenance of government owned and operated energy systems to utility companies or other private entities.



Utility System Privatization

Benefits:

- **Puts utility O&M, and recapitalization in a must-pay bill category**
- **Private owner must maintain system in compliance with all new codes & regulations**
- **“Non-core” utility system O&M no longer a headache for the facility.**

Utility System Privatization Drawbacks

- **Decrease to facility's discretionary O&M fund availability.**
- **Annual cost will probably go up.**
- **Loss of future flexibility in managing systems.**
- **Contribution in Aid of Construction tax (34% CPV) to be paid by facility in first year.**
- **Potential loss of hydro-power allocations.**

Utility System Privatization: DoD Requirements

By January 1, 2003, DoD will initiate privatization of all utility systems except those needed for unique security reasons or when privatization is uneconomical.

Benefits of Utility Contracts

- Project financing
- Reduced procurement time and resources
- Flexibility in guaranteed savings
- Excellent financing rate
- Relationship with a long-standing entity
- Payment through the utility bill
- Flexibility in measurement and verification
- One stop shopping for a turnkey project

The Drawbacks

- Availability
- Possibility of a poor relationship with utility
- Impact of restructuring

  ➜ Resource for restructuring information:

www.eia.doe.gov/cneaf/electricity/chg_str/tab5rev.html

Legislative Authorities

Codified as 42 USC 8256, P.L. 102-486
Energy Policy Act of 1992

Section 152(f) - Utility Incentive Programs

- Agencies:
  - Are authorized and encouraged to participate in utility programs generally available to customers
  - May accept utility financial incentives, goods, and services generally available to customers
  - Are encouraged to enter into negotiations with utilities to design cost effective programs to address unique needs of facilities used by agency.

Legislative Authorities

Codified as 42 USC 8256, P.L. 102-486
Energy Policy Act of 1992

Section 152(f) - Utility Incentive Programs
(cont'd)

- Agencies:
  - → May not be denied collection or rebates or other incentives if generally available to customers
  - → Shall retain 50% of energy and water cost savings (except DoD) from appropriated funds for additional energy projects including employee incentive programs.

Legislative Authorities

Codified as 10 USC 2865

DoD Facilities:

- May enter into sole source procurement from gas or electric utilities to design and implement cost effective demand and conservation services.
- May implement projects with a positive Net Present Value (measured over a period of 10 years or less).
- Shall retain two thirds of energy and water cost savings. Half may be used for additional energy and water projects, use of the other half is the discretion of the CO.

Legislative Authorities

48 CFR Part 41
Acquisition of Utility Services

GSA authority to prescribe policies/methods governing the acquisition and supply of utility services for Federal agencies and the delegated authority to specific agencies to purchase utility services.

Utility Supporting Legislation

48 CFR PART 16
Types of Contracts

Part 16 of the FAR addresses the various types of contracts and covers the use of basic ordering agreements (BOAs).

Utility Guidance

Defense Energy Program Policy Memorandum:

The DoD has issued a series of DEPPMs that applied to their energy management activities.

Utility Guidance

DEPPM 94-1

Participation in Public Utility Sponsored Energy Conservation and Demand Side Management (EC/DSM) Programs: coordinated and integrated strategy for DoD participation in commercial utility companies' EC/DSM programs.

Utility Guidance

Alternative Financing Guidance Memorandums

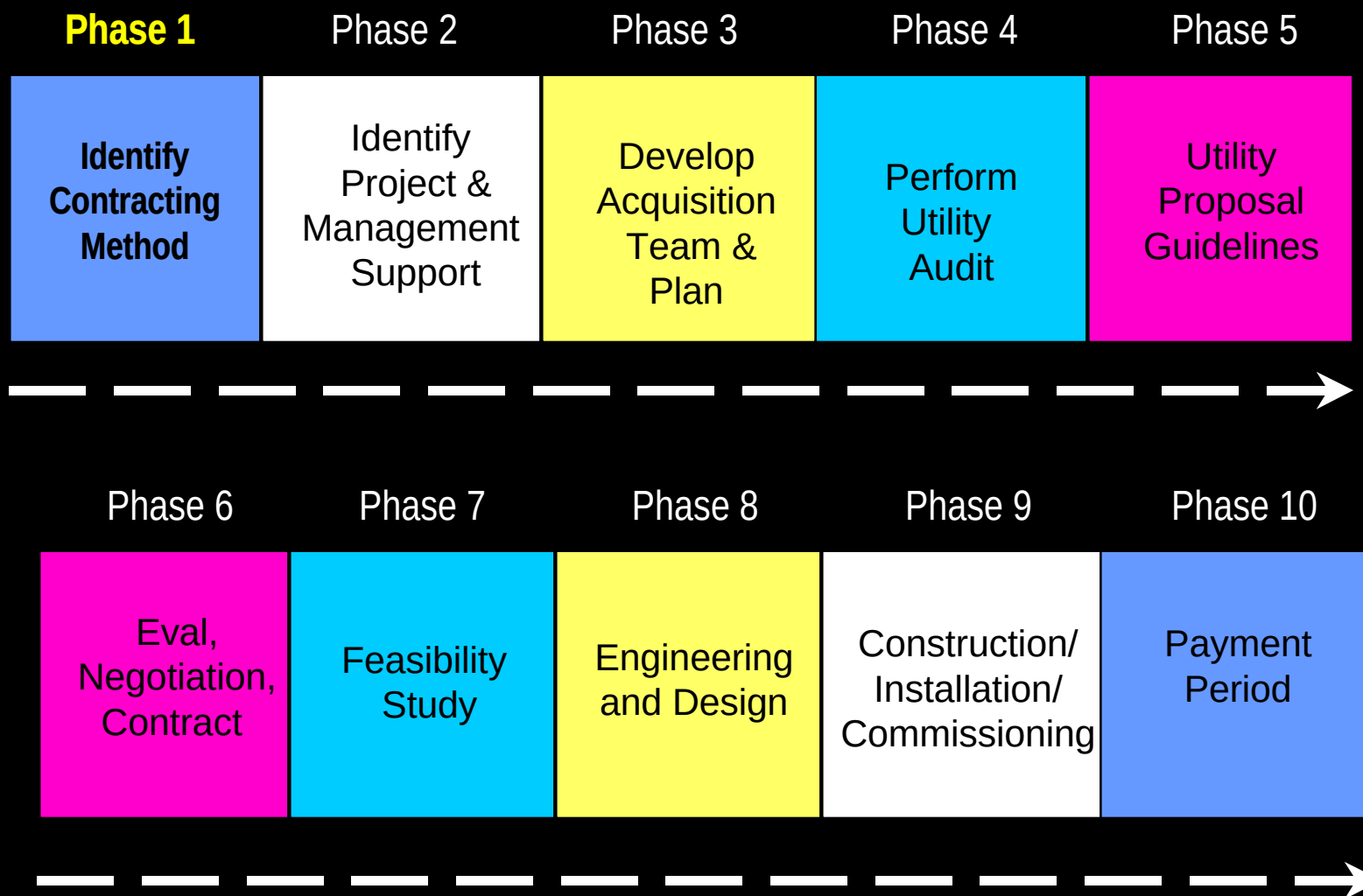
- Being developed by FEMP for use by all agencies.
- Reviewed by interagency committee.
- Patterned after DEPPM.
- Sole Source
- Congressional Notification

Checklist of Skills

At the end of this section, can you:

- Define what utility incentive programs are and who is eligible to use them?
- Describe the evolution of utility programs?
- State the benefits and drawbacks of utility contracts?
- Cite the legislation that enables the programs?

Phases to Projects Implementation



1 *Identify Contracting Method*

The objective of Phase 1 is to teach participants to:

- List the Available Utility Contract Vehicles.
- Identify the Key Issues to Consider When Determining Which Contracting Method to Pursue.

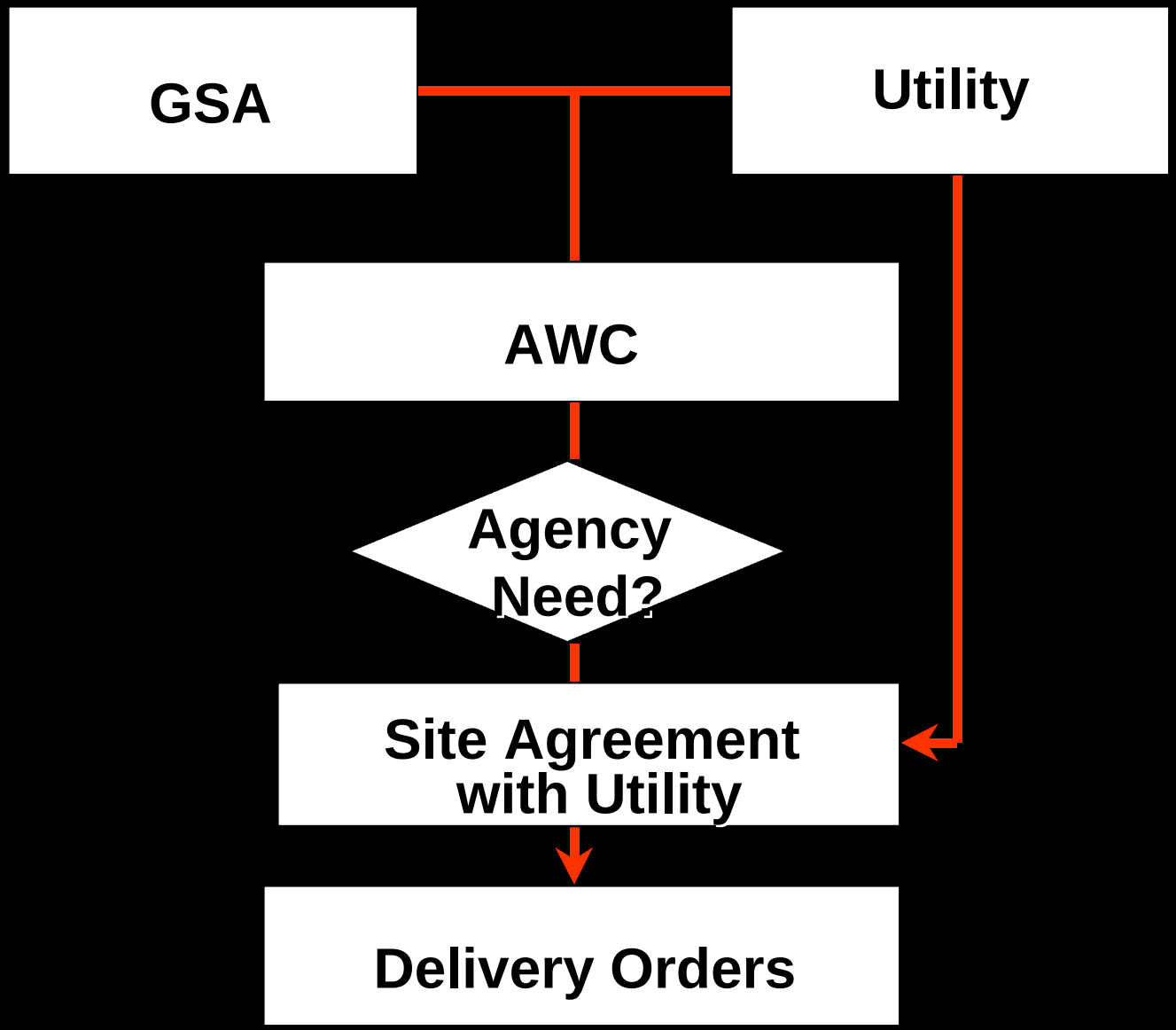
Utility Contract Options

- AWC
- Agency Model Agreement
- BOA
- Site Specific

GSA Area-wide Contract

- GSA puts in place
- All Agencies may use
- Utility service territory umbrella contract
- Specific project DO/TO issued
- Status/examples:
  - → Approx. 100 in place with EE/RE addition
  - → Public Service Company New Mexico

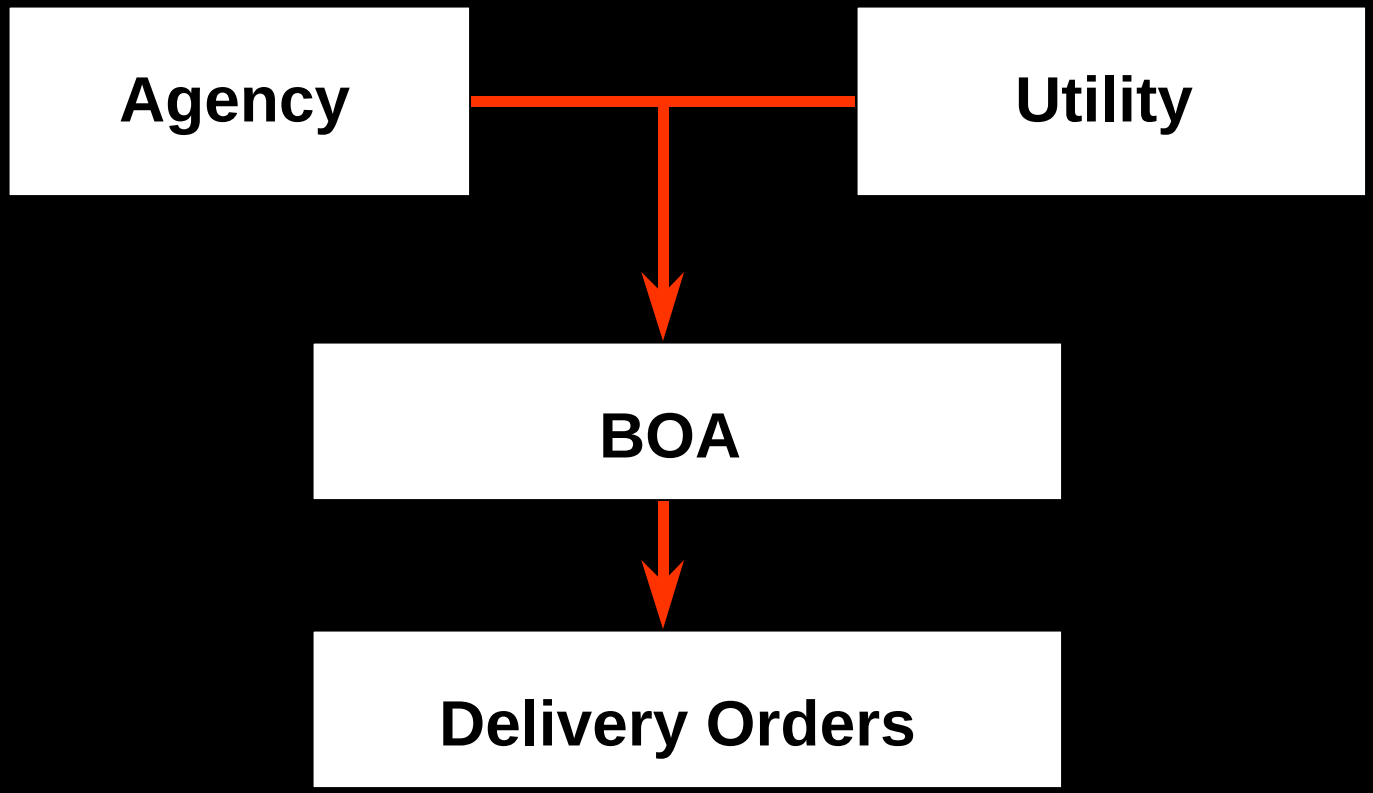
Area-Wide Contract



Basic Ordering Agreements

- Any Agency may put in place with Utility
- Utility Service Territory umbrella contract
- GSA may put in place for other agencies or can be specific to an agency
- Specific project DO/TO issued
- Status/examples:
  - ➜ Approximately 20+ currently in place
  - ➜ Southern California Edison ENVest
  - ➜ San Diego Gas & Electric

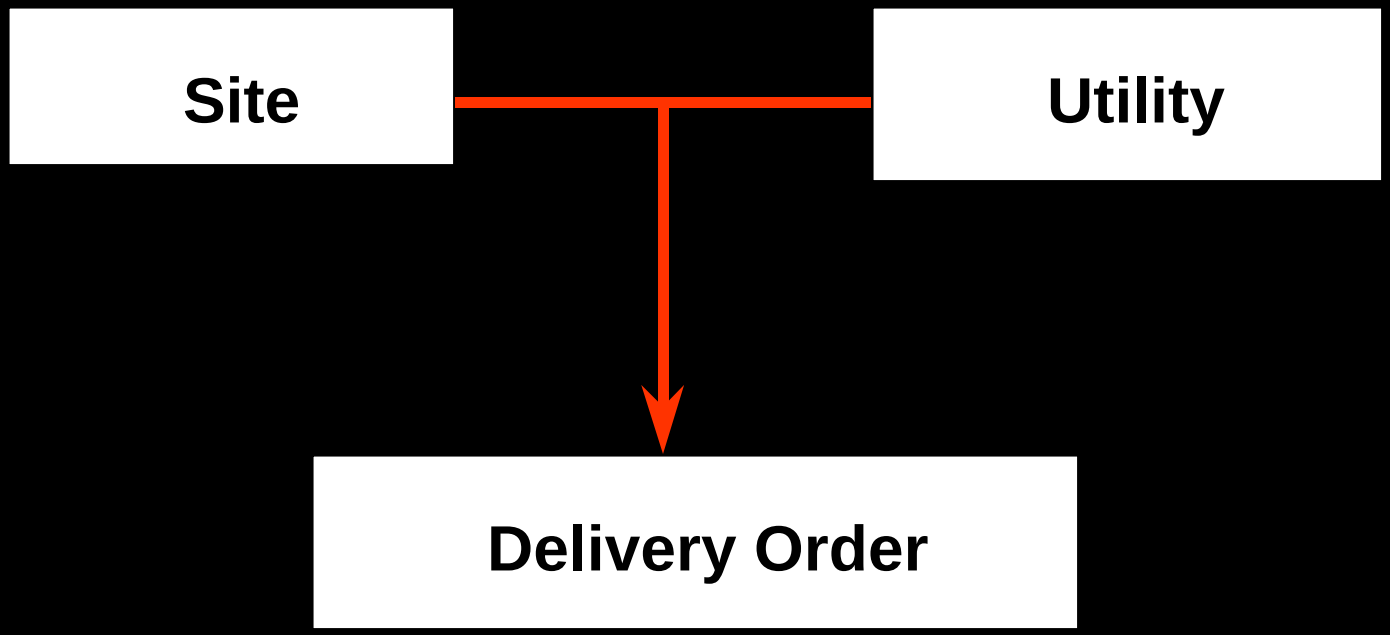
Basic Ordering Agreement



Site Specific Contracts

- Includes all site terms & conditions
- Any agency can put one in place
- Always available as an option
- No additional DO/TO required
- Status/Example:
  - ➜ Fort Lewis / Tacoma Public Utilities / BPA

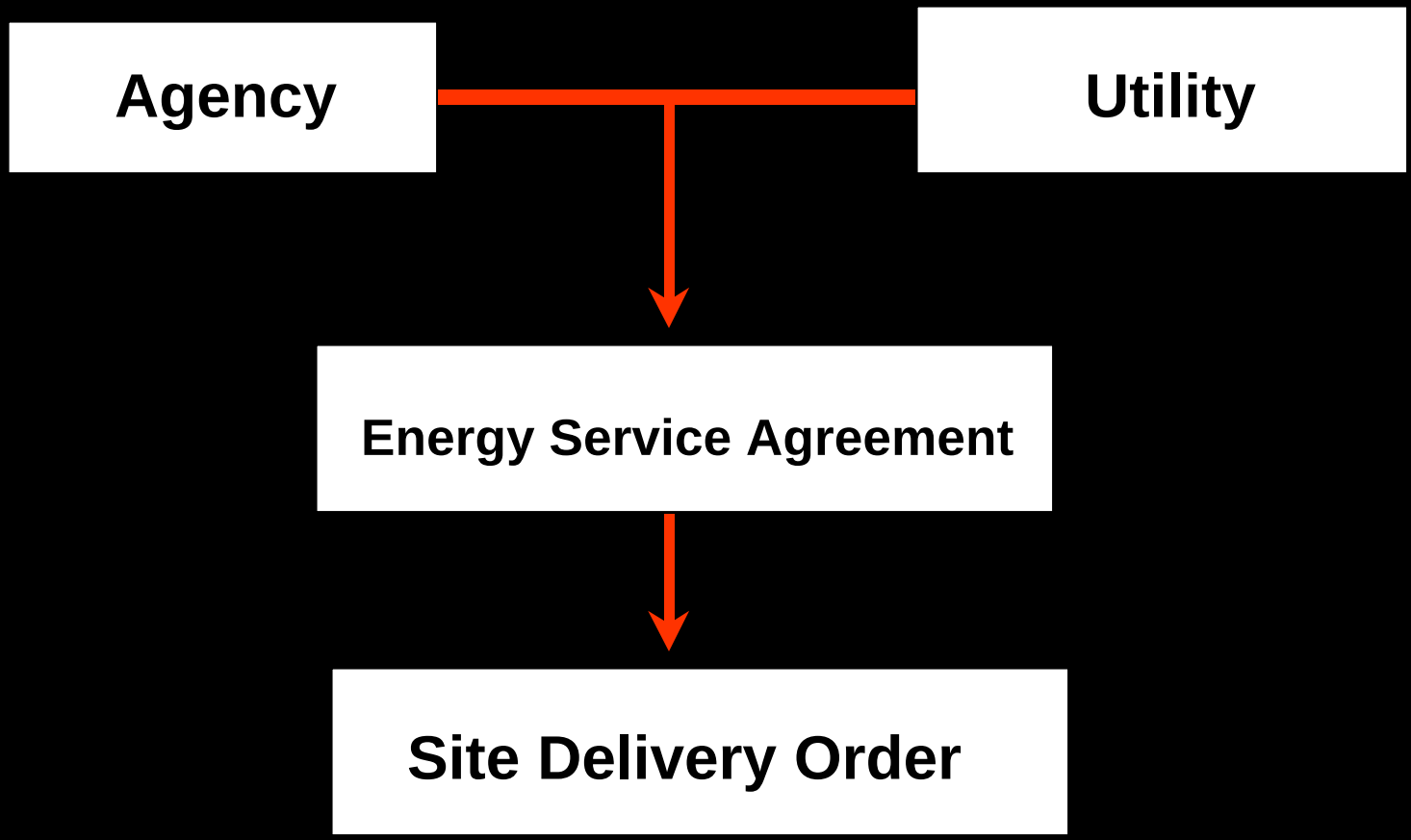
Site Specific Agreement



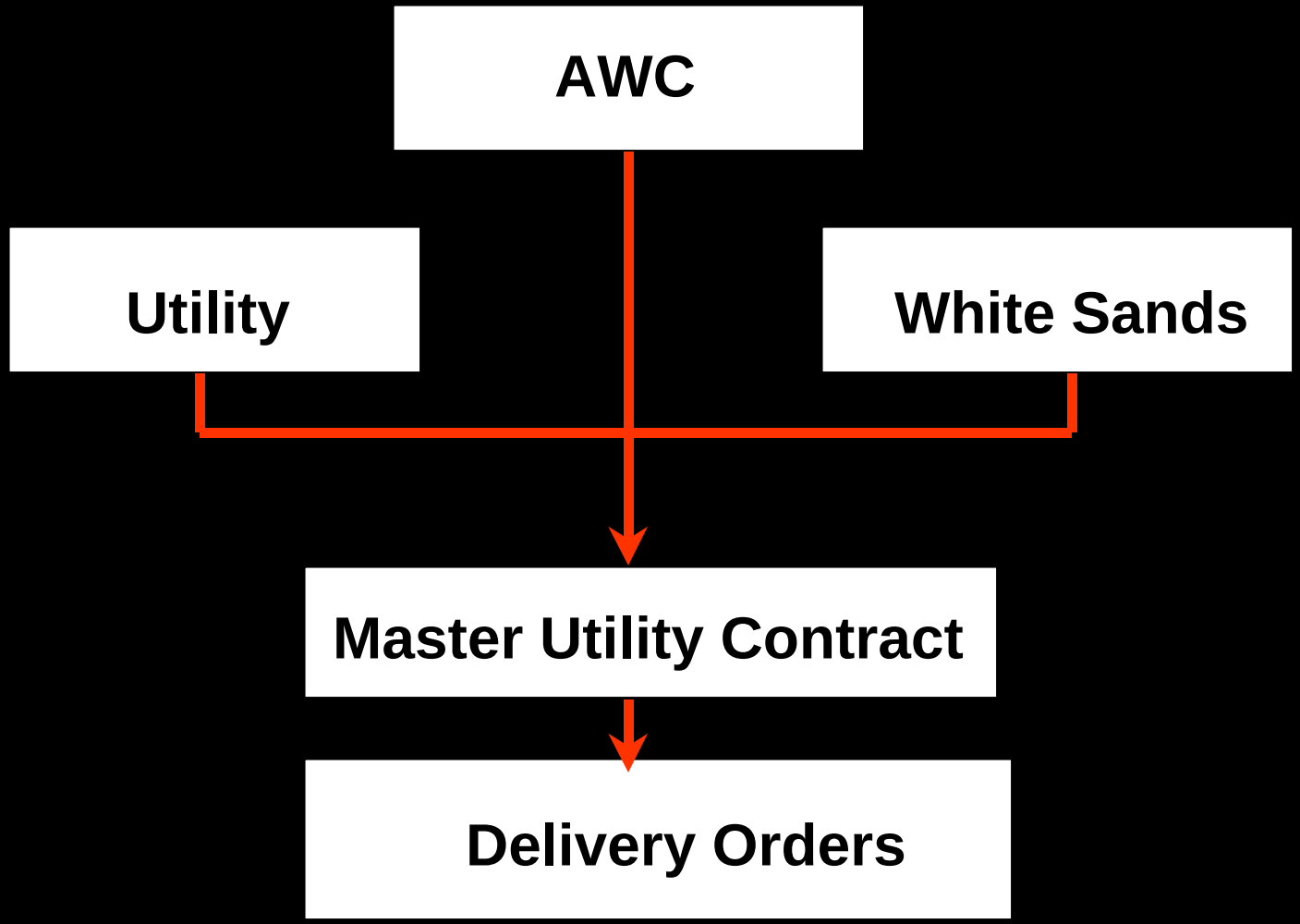
Agency Model Agreements

- Agencies can develop one with the Edison Electric Institute
- Terms and Conditions specific to an Agency
- Can be attached to existing agreements or used as a stand-alone contract
- Specific project DO/TO issued
- Status/Example:
  - → EEI/DOD model agreement

Agency Model Agreement



White Sands Example



Short & Simple. Produces 1-2 page Delivery Order.

Utility Contracting Vehicles

Delivery Orders are contracts between the agency site and the utility which incorporate the specific details of the project including:

- costs
- specified ECMs
- scope of work
- terms and conditions of the contract
- specific site conditions

Utility Service Options

Options may include:

- Audits
- Feasibility Studies
- Engineering &Design
- Project Management
- Financing
- Training
- Equipment Purchases & Installation
- M&V
- O&M

Ask Your Utility About

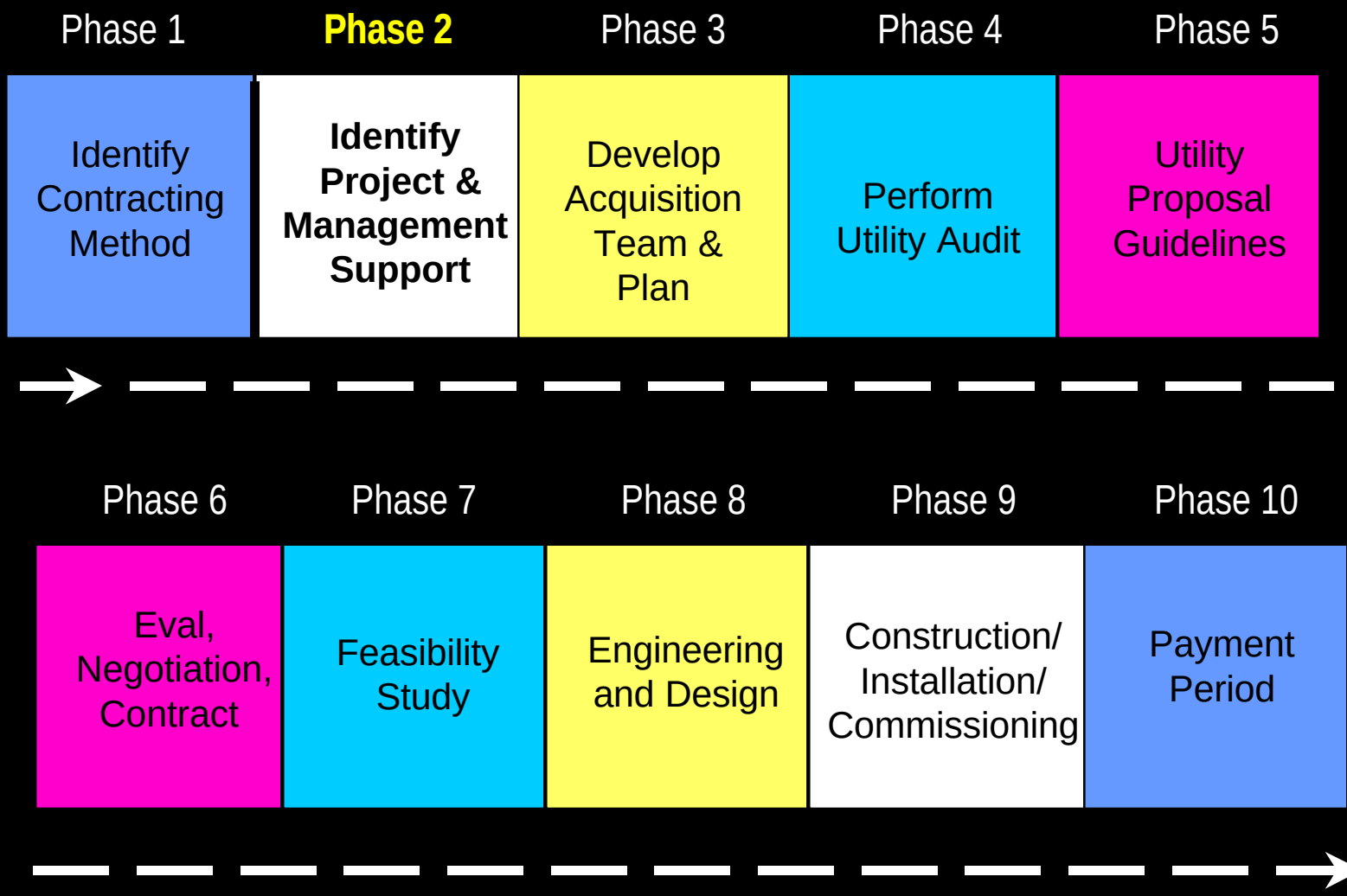
- Programs currently in place.
- Incentives for implementing energy saving projects, such as rebates or a free audit.
- Available optional services.
- Experience in doing these types of projects for Federal customers.
- Requirement of a long-term power contract as part of the contract.
- Affect of electricity restructuring-- expected rate changes, ability to choose energy supplier.

Checklist of Skills

At the end of Phase 1, can you:

- **List the available utility contract vehicles?**
- **Identify the key issues to consider when determining which contracting method to pursue?**

Phases to Projects Implementation



2 *Identify Project/Management Support*

The objective of Phase 2 is to teach participants how to:

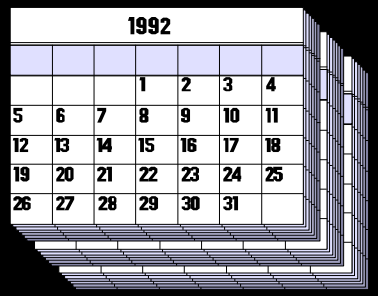
- Determine the goal of the project.
- Establish baseline methodology.
- Prioritize technical requirements.
- Select potential ECMs.
- Determine means to obtain management support.

Definition of Scope

Scope =

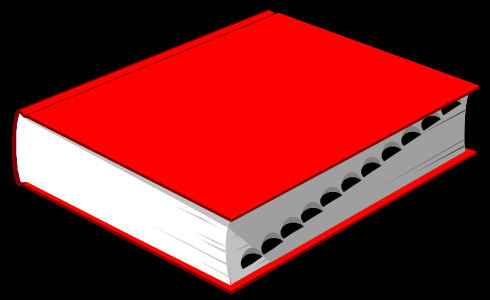
Site + Technologies + Contract Term

\+ Required ECMs + Potential ECMs +



Definition

Bundling combines long and short term payback ECM options at a single facility creating a project “package”.



Pros of Bundling

- One provider combines many technical solutions while assuring synergy of measures.
- Savings from short-term payback ECMs can contribute to the ability to accomplish longer term ECMs, or related facility improvements.
- Reduction of long-standing maintenance headaches.

Cons of Bundling

- Subcontractor may be an expert in one technology but not in others.
- Attempt to accomplish all measures makes bundle less likely to compete successfully for agency support, or un-financable by the private sector provider.
- Bundled package can be more difficult to evaluate technically and manage contractually.

Baseline Methodology

Baseline conditions consist of:

- engineering data regarding historical energy consumption and cost
- building and equipment characteristic data
- information regarding occupancy and equipment maintenance

Prioritize Facility Technical Requirements

Compile a comprehensive list based on

- **Specific facility needs**
- **Facility condition**
- **Impacting issues**

Select Potential ECMs

Potential ECMs are organized into 7 categories:

- Building Envelope
- HVAC Equipment
- HVAC Distribution and Water Heating System
- Lighting and Power System
- Types of Energy Management and Control Systems
- Types of Heat Reclaim Systems
- Types of Renewable Energy Systems.

Enlisting Management Support

- Get an early start
- Emphasize the benefits
- Summarize the financing process
- Be prepared to overcome the “we can’t do that” mentality

Ask Your Utility About

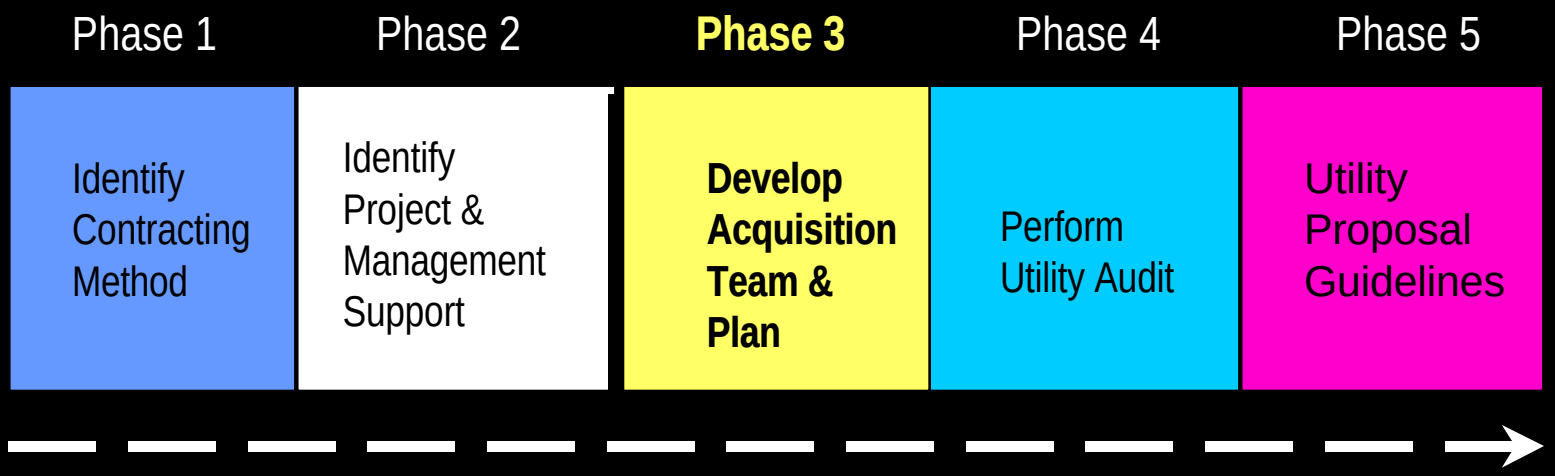
- How baseline energy usage will be established.
- How they will determine which energy conservation measures will be implemented.

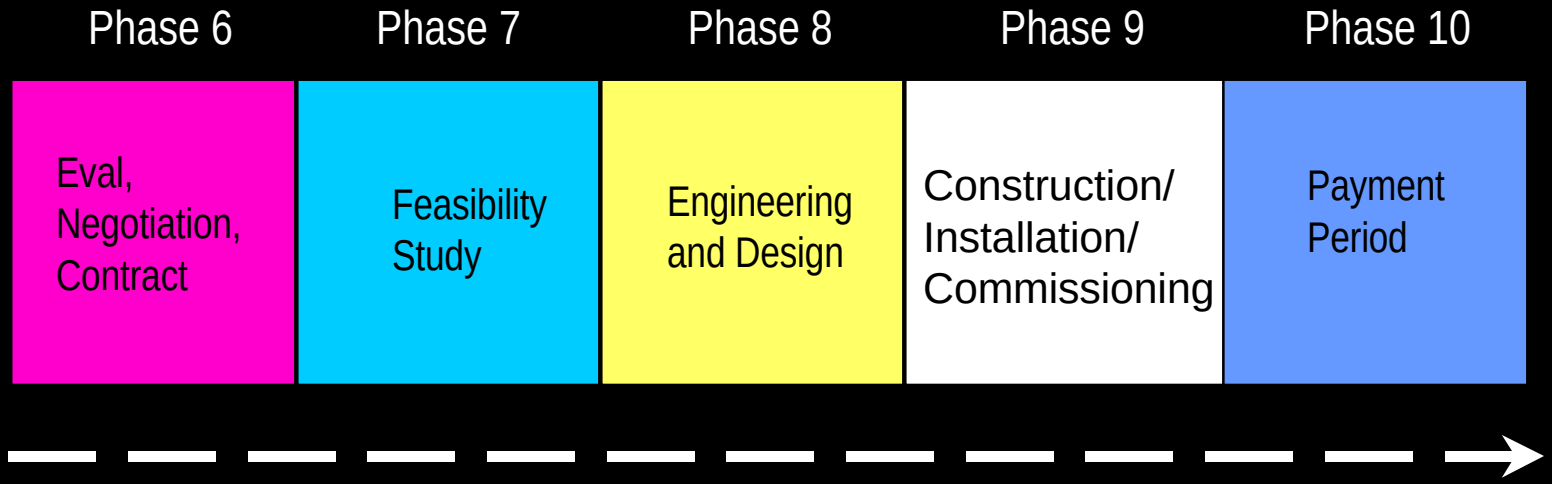
Checklist of Skills

At the end of Phase 2, can you:

- Determine the scope of the project?
- Prioritize technical requirements?
- Select potential ECMs?
- Obtain management support?

Phases to Projects Implementation





3 *Develop Acquisition Team & Plan*

At the end of Phase 3, participants will be able to:

- **Assemble an acquisition team**
- **Develop an acquisition strategy and plan**
- **Initiate a facility audit**
- **Identify the "off-ramps" in Utility Contracting.**

Assemble Acquisition Team

Bringing the team together early:

- allows for project support.
- reduces the turn-around time for approvals.
- expedites the procurement process.
- apprises team members of current and future agency plans impacting the project.

Define Team Roles

Potential team members:

- Technical
- Procurement
- Legal
- Budget
- Administrative Services/Maintenance
- Environmental
- Tenants

Address Acquisition Team Issues

The team must address:

- budget and financial concerns.
- environmental constraints.

Other relevant issues might include:

- conflict with pending/ongoing construction projects.
- changes in facility usage.
- unique facility issues.
- pending changes in facility O&M.
- mission changes.
- leases/contracts already in place.

Budget & Financial Concerns

Establishing appropriate fund for payment:

- redirect funds
- tenants

Environmental Protection Requirements

- Comply with the National Environmental Policy Act.
- Develop detailed disposal requirements statement for hazardous materials relevant to the project.

Potential Conflicts

Consider:

- **Near- term Mission Changes**
- **Changes in Facility Usage**

Unique Facility Issues

Consider unique facility issues such as:

- Restricted access
- Special environmental conditions.

Operations & Maintenance

Typically, the utility is responsible for:

- Designing, financing, installing, and maintaining retrofit equipment.
- Training in-house staff in O&M procedures, coordinating O&M work with existing maintenance staff or contracted O&M personnel.

Develop Acquisition Strategy

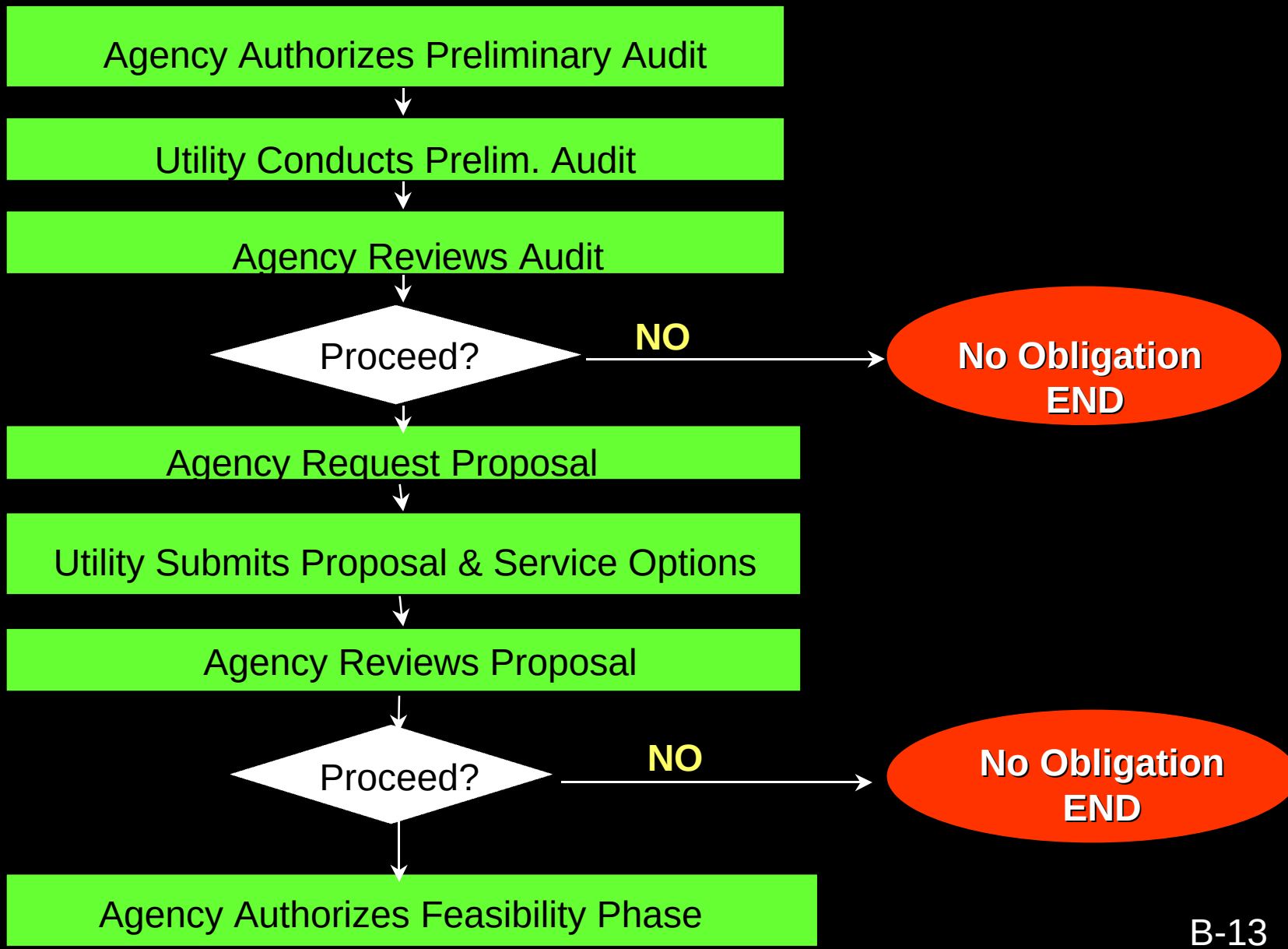
Ask questions:

- What is the appropriate scope of work?
- What technologies should be required?
- What is the maximum contract term the agency is willing to live with?

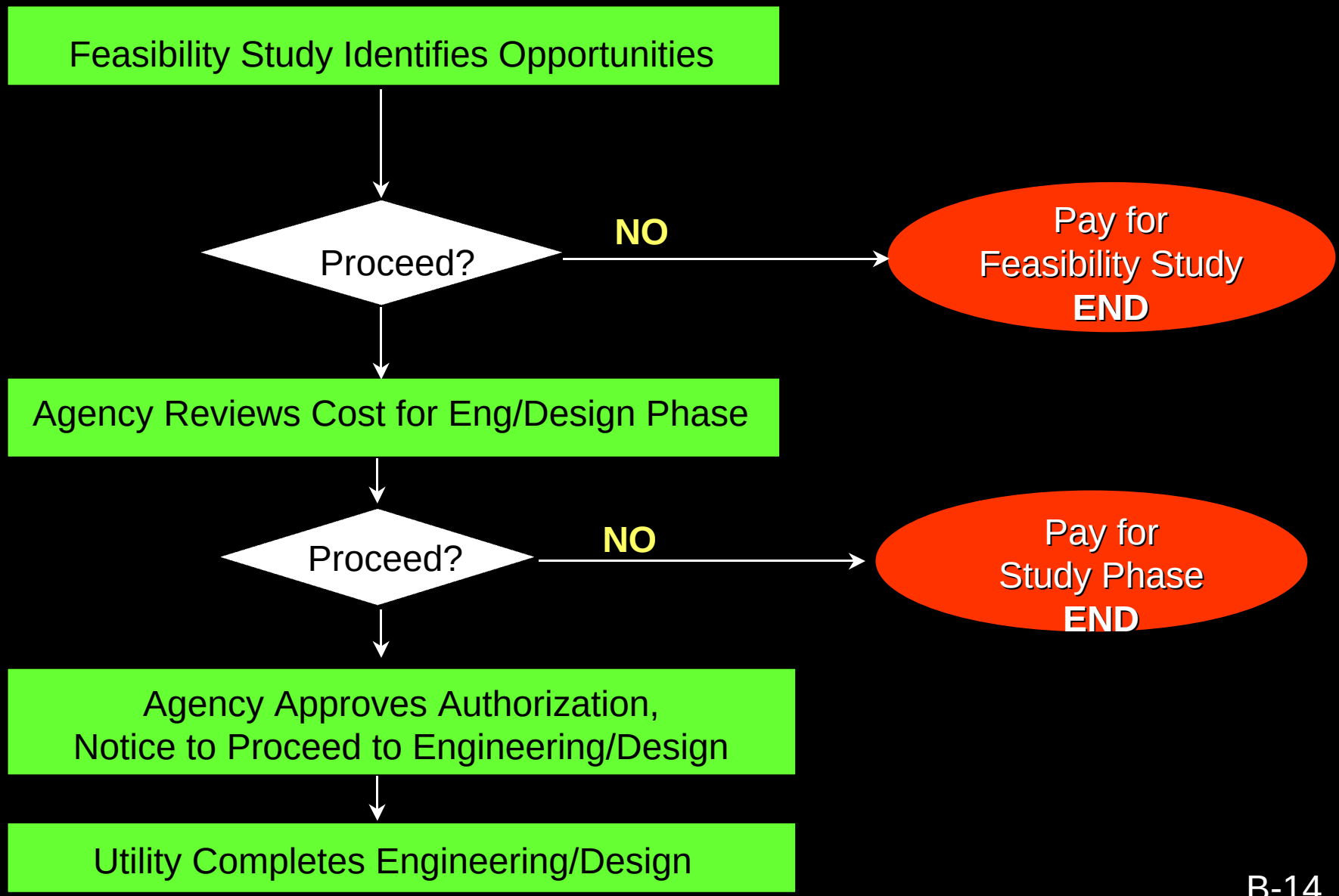
Initiate the Facility Audit

- Submit informal documentation.
- Generally, no costs/fees incurred with an audit.

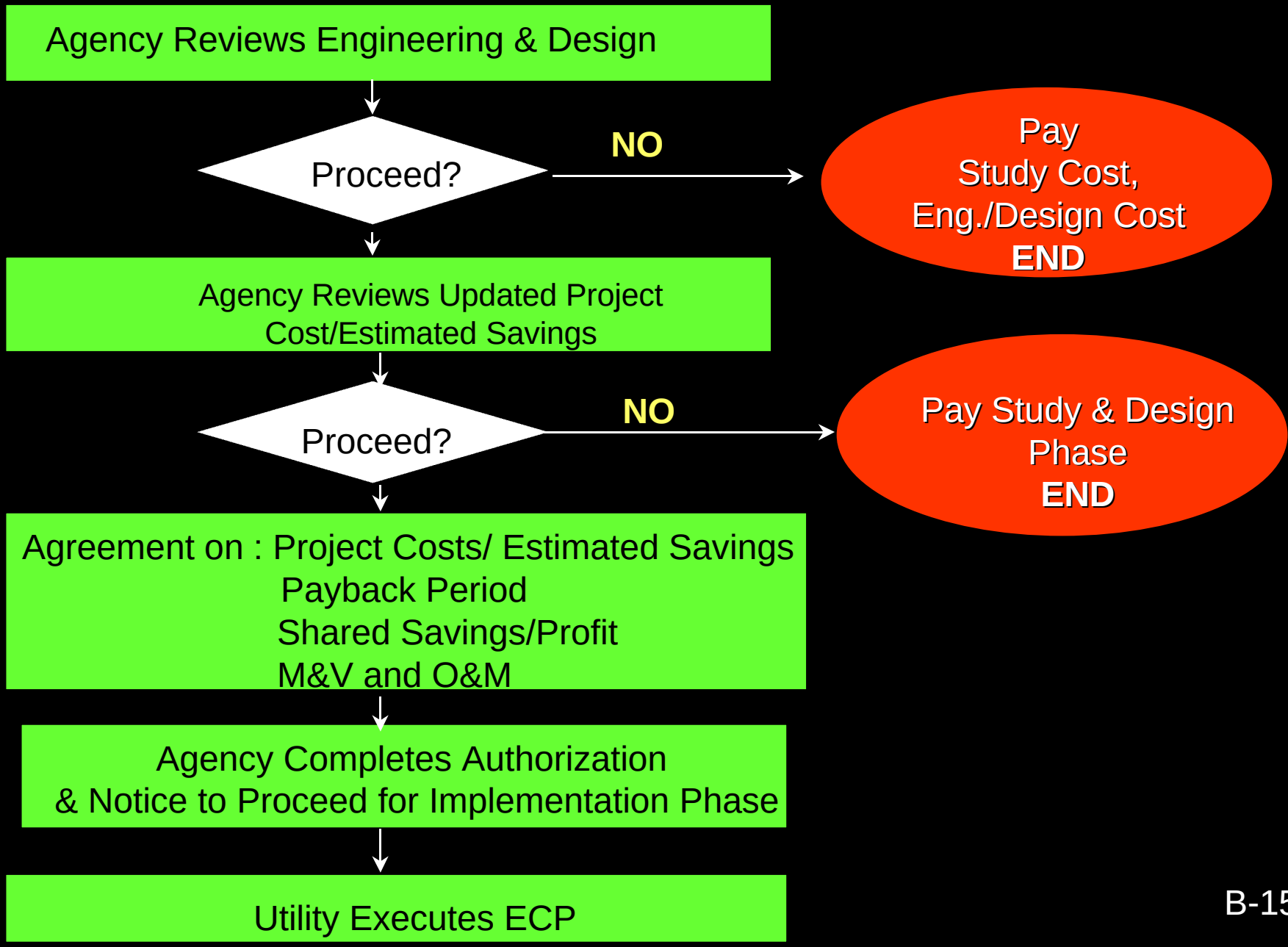
Start: The Audit Phase



Feasibility to Engineering/Design



Engineering & Design to Implementation



Ask Your Utility About

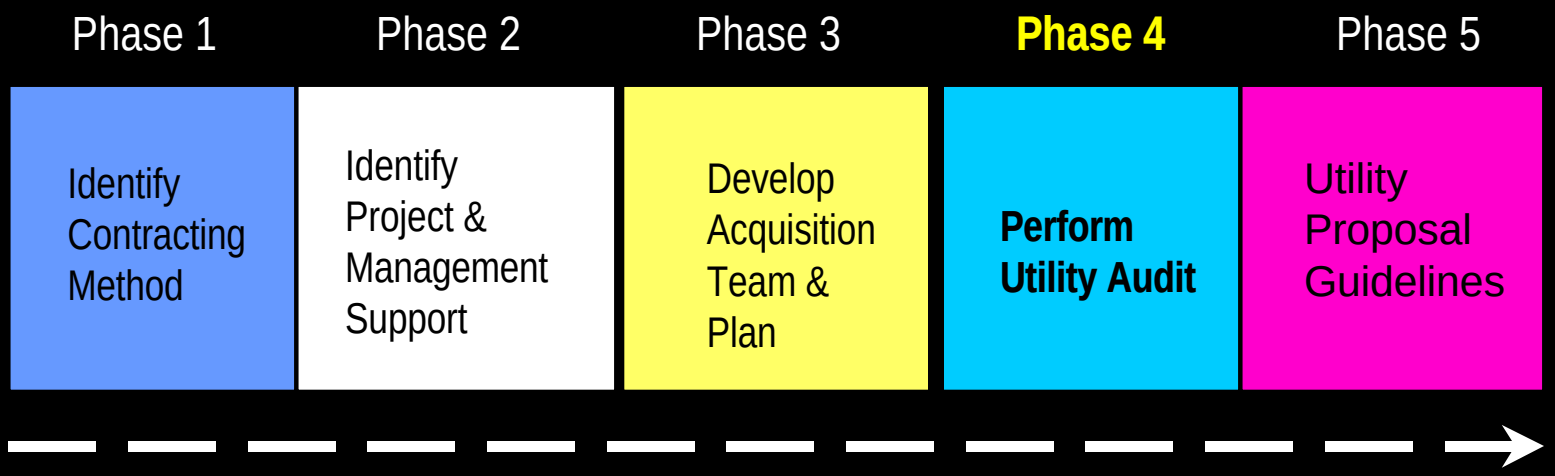
- Whether or not there is a charge for the initial audit.
- References and past-performance information.
- The process for implementing and managing this type of project.
- Subcontractor selection.

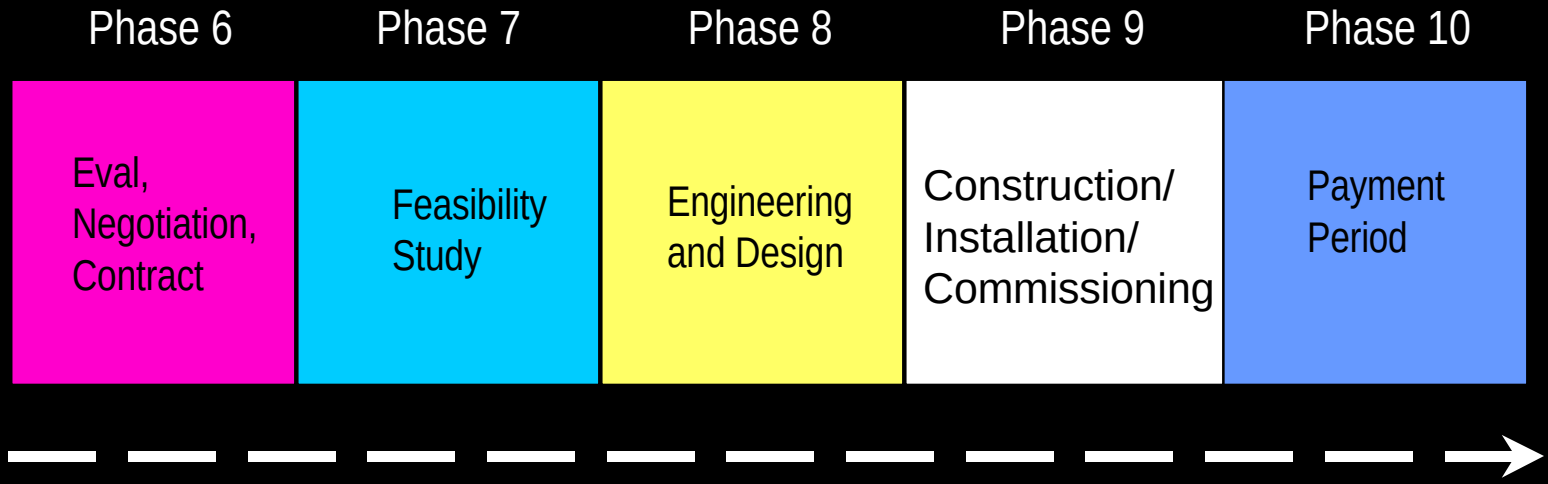
Checklist of Skills

At the end of Phase 3, can you:

- Assemble an acquisition team?
- Develop an acquisition strategy and plan?
- Initiate facility audit?
- Identify the “off-ramps” in Utility Contracting?

Phases to Projects Implementation





4 *The Utility Audit*

After completing Phase 4, you will be able to:

- Prepare Background Facility Data
- Review the Utility Audit

Prepare Background Facility Data

Stages of Data Collection:

1. Collect historical utility data.
2. Collect current building and equipment data.
3. Collect data on anticipated facility and utility changes.

Historical Data

Include:

- Energy use data
- Energy cost information
- Previous audit information

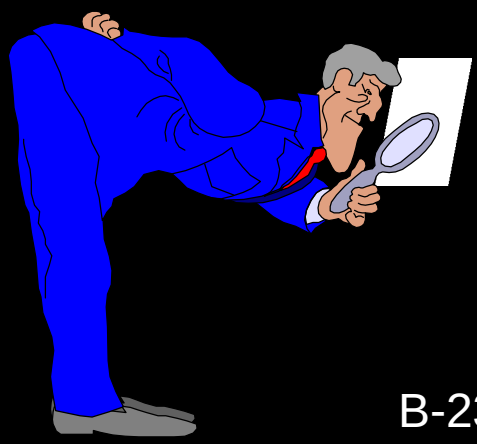
Current Building & Equipment Data

Include:

Architectural and structural specifications
HVAC, lighting, and mechanical equipment space conditions.

Reviewing the Audit

Audit results may closely resemble the utility's proposal.



Federal Protocol for Energy Audits of Federal Facilities

- Recommended ECMs are listed and prioritized based on Federal Life Cycle Cost calculations and simple payback of less than ten years.
- Listing and prioritization of no cost O&M projects. Renewables and water conservation screenings are included.
- Fuel neutrality demonstrated in ECM recommendations.
- Explanation of measurement methods used to establish baseline.

Federal Renewable Energy Initiatives

- Utility Photovoltaic Group (UPVG): Organization of leading utilities focused on increased installations of photovoltaic systems.
- Million Solar Roofs: Agencies will support the Executive Initiative by installing 20,000 solar energy systems at federal facilities by 2010.
- Federal Renewable Energy Projects: $1.5 million in FEMP funding to support cost-effective Federal renewable energy projects. These projects will also qualify under the President's Million Solar Roofs Initiative.

Ask Your Utility About

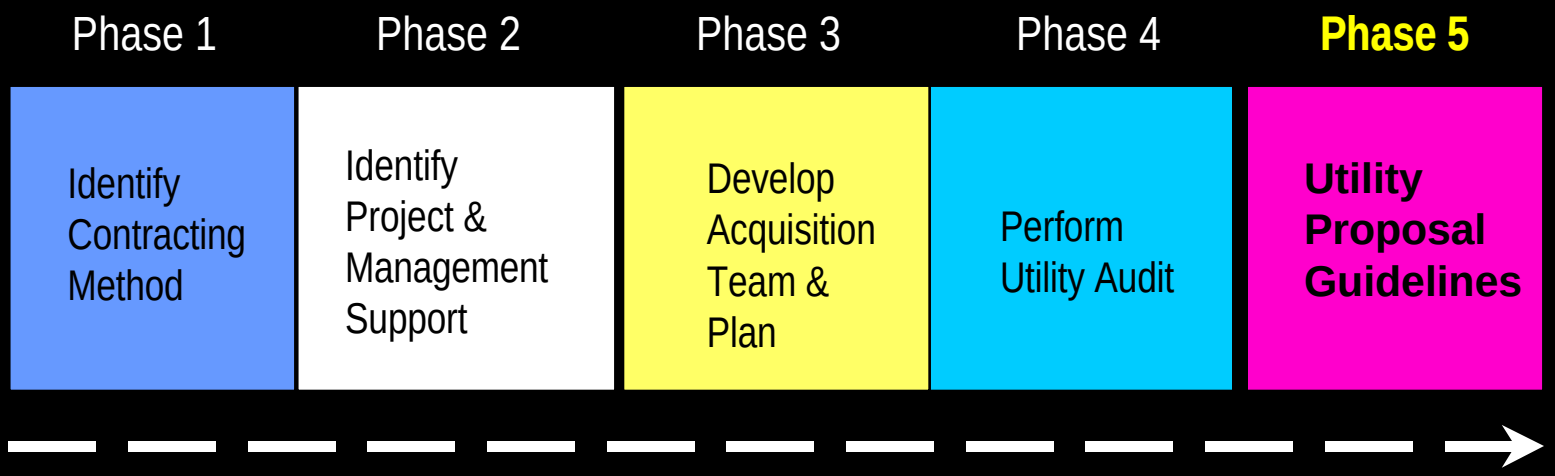
- How will they accomplish the audit.
- Monitoring of equipment or evaluation from nameplate data during the audit phase.
- Whether their audit process follows federal protocols.
- Whether the recommended ECMs pay back is less than 10 years.
- Screening for opportunities to use renewable energy and water conservation.

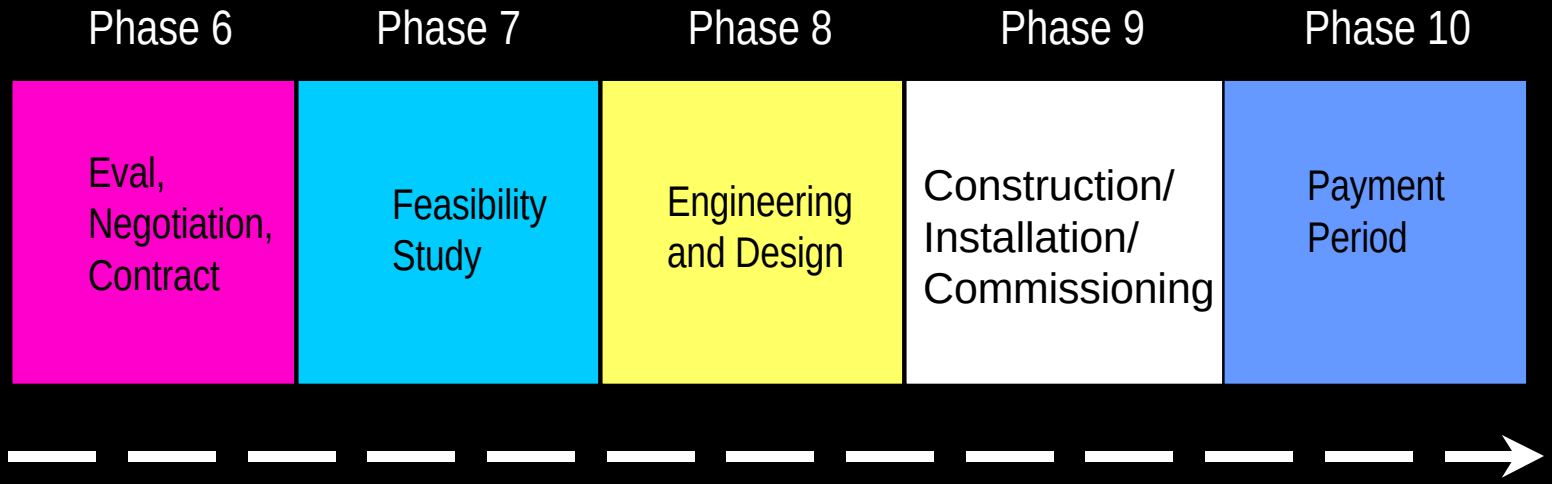
Checklist of Skills

At the end of Phase 4, can you:

- Prepare background facility data?
- Review the utility audit?

Phases to Projects Implementation





5 *Proposal Requirements & Evaluation*

The objective of Phase 5 is to teach participants to:

- Develop Proposal Requirements
- Develop Proposal Evaluation Procedures
- Address Negotiable Items
- Hold Pre-Proposal Meeting

Uniform Contract Format

Part 1	Schedule (Sections A-H), Specifications, SOW
Part 2	Contract Clauses (Section I)
Part 3	Documents, Exhibits, Attachments (Section J)
Part 4	Representations & Certifications (Sections K-M) Instructions & Proposal Requirements

Uniform Contract Format

Modify Sections:

B - Supplies or Services and Pricing

C - Descriptions/Specifications/SOW

H - Special Contract Requirements

L - Instructions, Conditions,
& Notices to Offerors

Section B: Supplies or Services & Prices

- Types of ECMs

Schedule B-1:

- Energy Savings & Annual Energy Cost Savings
- Annual Contract Payments & Term
- Annual Govt. Cost Savings

Section B (cont.)

Schedule B-2:

- Implementation Costs
- Margins & Adders
- Financing Rates and Term
- Rebates or Utility Incentives

Section B (cont.)

Schedule B-3:

- Year by Year Costs
- O&M Costs
- M&V Costs
- Future Capital Investments

Section C- Descriptions/Specs/SOW

Desired ECMs

- Service Improvement
- New Infrastructure
- Undesired ECMs

Section C (cont.)

Performance Requirements

- Environmental Conditions
- Lighting Levels

Section C (cont.)

Interface Requirements

- Controls
- Spatial Limitations

Use performance specifications. Prescriptive specifications should be used only when necessary.

Section H - Special Contract Requirements

- Title, Ownership of Equipment: Government decides who retains title during the contract term.
- Buyout Provisions
  (Index formula vs fixed schedule)

Section H - (cont.)

- Notice of Payment & Performance Bond Reqs.

Penal sum of the performance bond shall equal 100% of the implementation phase

Penal sum of the payment bond shall equal 40% of the price of the implementation phase.

Section H (cont.)

Financier Protection

- Assignment of Claims (payments to financier)
- Security Interest (financier retains title)
- Notification to Govt. of Problems

Section L - Instructions, Conditions & Notice of Offerors & Quoters

- Requirements for Technical Proposal
- Requirements for Price Proposal
- Pre-proposal Conference
- Site Visit

Proposal Requirements

For each ECM, describe:

1. Purpose
2. Current Status, Existing Baseline
3. Detailed Description
4. Implementation Costs, Rebates, etc
5. Annual Energy and O&M Costs
6. Life Cycle Cost Analysis
7. M&V

Overall Proposal Evaluation

- Easy to understand and follow
- Past Performance Included
- Subcontractor selection criteria
- Management approach
- Cooperation/communication level

Proposal Evaluation Procedures

Consider:

- Bundling of ECMs
- O&M
- Guaranteed Performance/Savings
- Fuel Neutrality
- Price Reasonableness
- Reasonable Financing Rate
- M&V Plan
- Reasonable Baseline

Proposal Evaluation Procedures (cont.)

Consider:

- Reasonable Savings
- Integrated Savings from Multiple ECMs
- Environmental Benefits
- Term
- Do Payments Exceed Savings?
- All Required ECMs Addressed?
- Renewables/Water ECMs

Economic Review of Proposal

Review includes:

- Careful calculation of the energy cost savings using detailed rate schedule
- Project implementation costs:
  - ➜Compare w/ cost estimating handbooks
  - ➜Competition among subcontractors
- Adders:

  project management, hours and hourly rate, overhead and profit (both % and basis) taxes, etc.

Estimate of Energy & Cost Savings

- Baseline consistent w/ requirements
- Assumptions
  - → Operating hours
  - → Weather data
- Acceptable variance btwn. proposal & final figure
- Compare w/ independent estimate or check the savings calculations

Negotiable Items

Optional Services include:

- Guaranteed Performance/Savings
- Measurement and Verification
- Operations and Maintenance

Guaranteed Performance/Savings

- Determine whether you would like the utility to guarantee a level of performance or savings.
- If desired, the method for establishing the guarantee must be carefully defined in the contract.
- Requiring guaranteed savings increases the cost of the project.

Measurement and Verification

- Including M&V will increase project costs.
- If including M&V, use the FEMP M&V Guidelines.

Operations and Maintenance

Determine whether O&M will be conducted by in-house staff or through the utilities subcontractor.

Ask Your Utility About

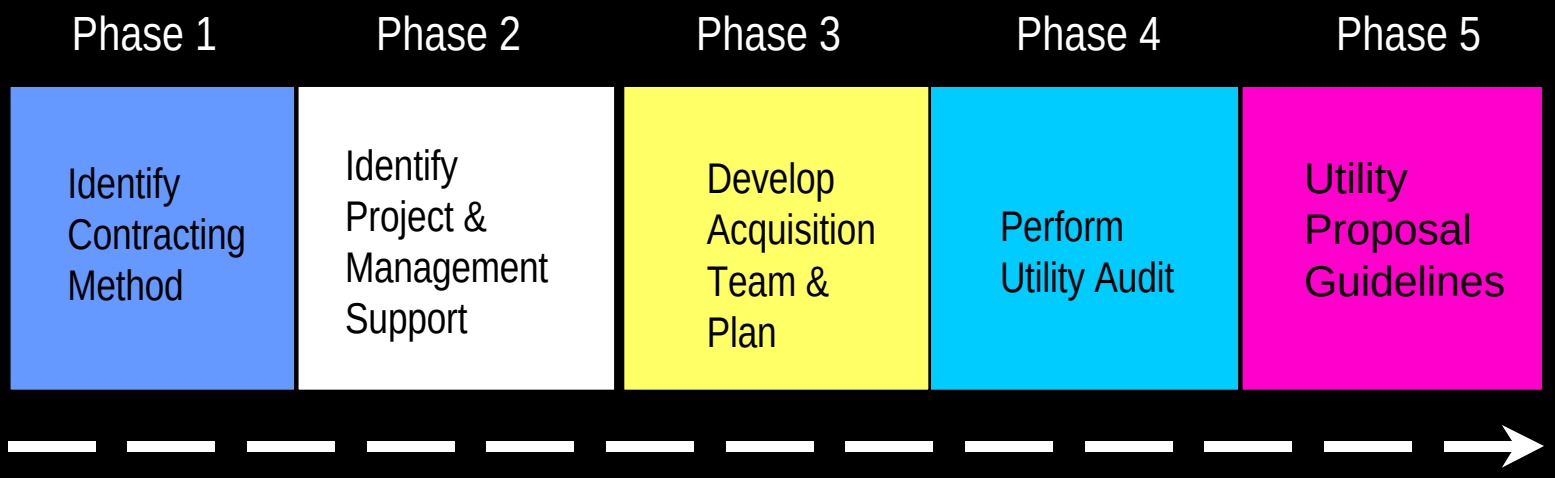
- Availability of guarantee for savings.
- Measurement and verification of the savings as part of the contract.
- Availability of operation and maintenance services.

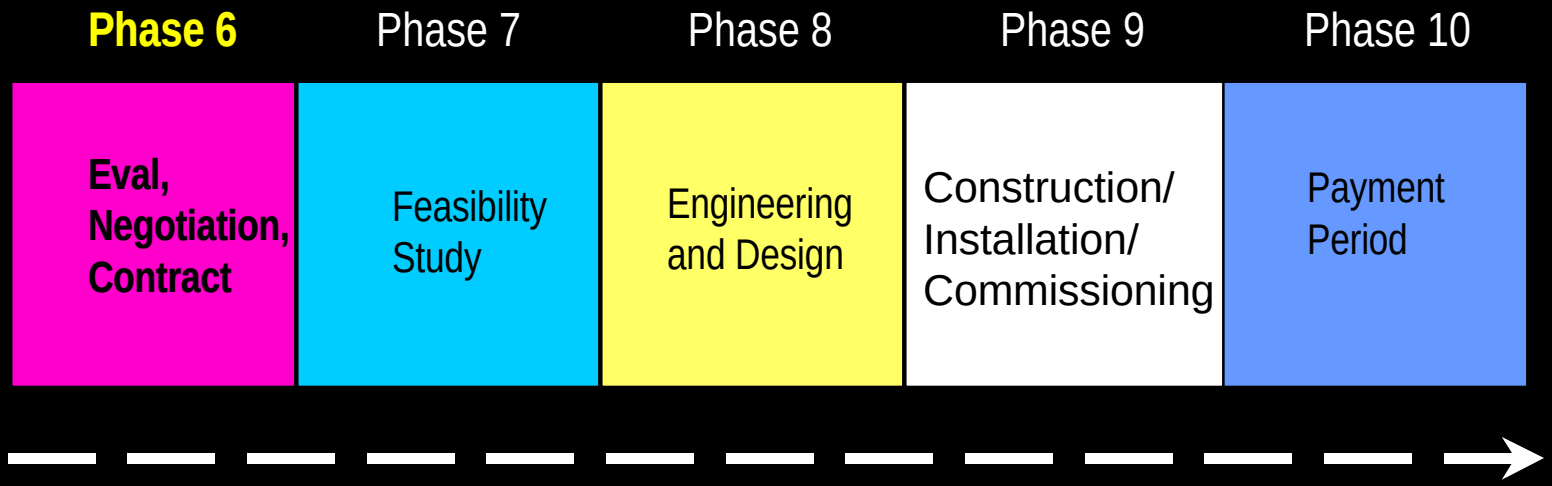
Checklist of Skills

At the end of Phase 5, can you:

- Develop Proposal Requirements?
- Develop Proposal Evaluation Procedures?
- Address Negotiable Items?

Phases to Projects Implementation





6 *Project Financing & Contract Issuance*

The purpose of this phase is to teach participants to:

- Negotiate Project Financing
- Negotiate Profit Margins & Rates of Utility

Negotiate Project Financing

- Construction interest
- Term interest
  - ➜T-bill rate for same term + adders
  - ➜Depends on dollar amount, term, recourse and other risks
- Solicit several offers for financing to select the best for project.

Components of Interest Rate

Interest Rate Components

- Base Rate - Dependent on Prime Rate or Treasury bill rate
- Basis Point = 1/100% = .01%
- Adder - Basis Points dependent on term, risk, total $ amount, credit rating
- Hedge - Basis Points to account for the risk of interest rate fluctuations during project implementation.
- Total Interest Rate = Base Rate + Adders + Hedge

Other Financial Terms

- Termination Schedules
- Buy-outs/Buy-downs
- Pre-acceptance Buy-downs
- Non-Recourse Financing

Other Contractual Terms

- Warrantee Clauses
- Davis Bacon
- Indemnity Clause
- Use of Sub-Contractors

Utility Margins and Profits

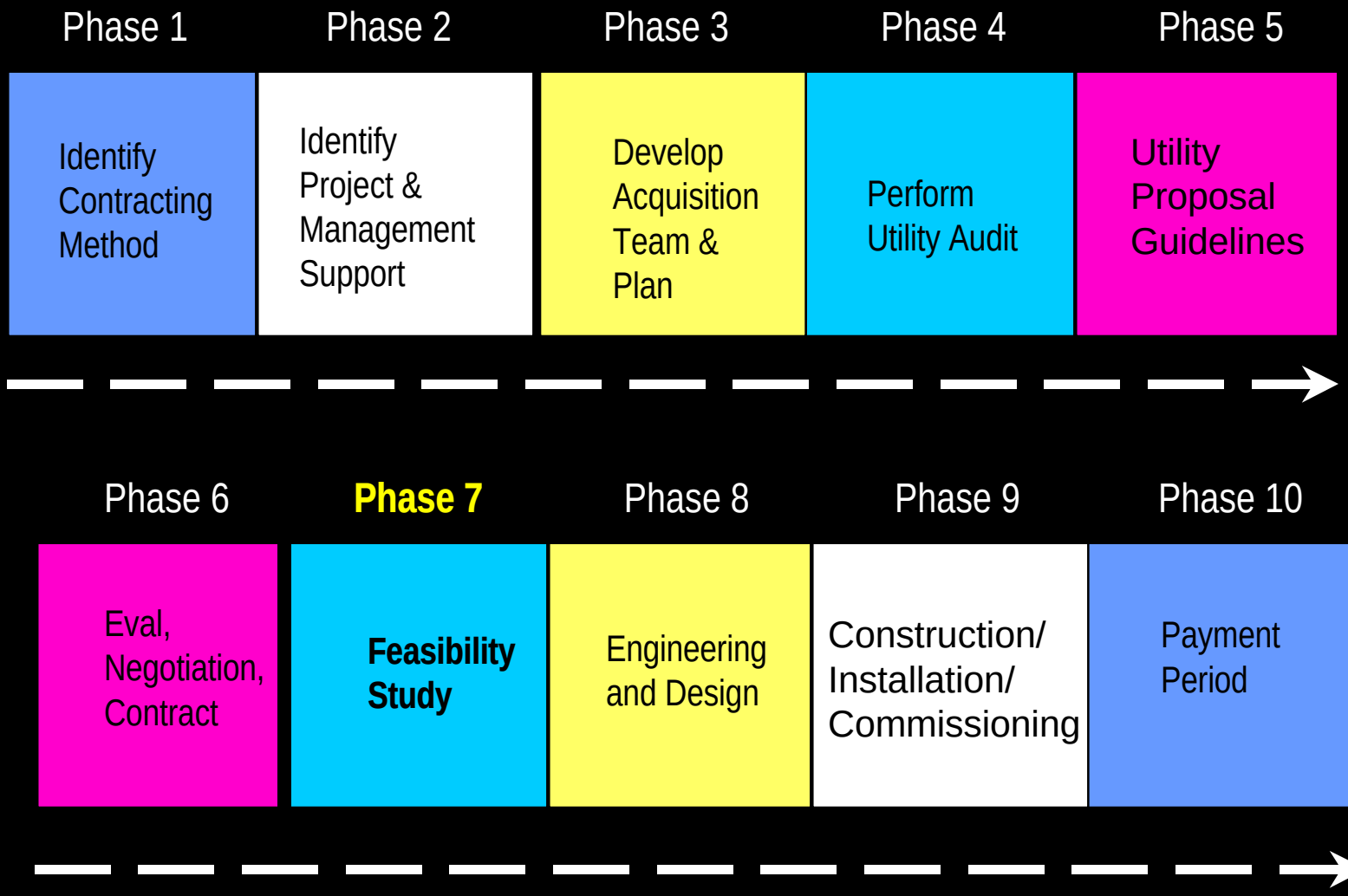
- Projects are partnerships but the utility is still a business and must make a profit on its work.
- Utilities expect to be able to charge a reasonable profit and a fee.

Checklist of Skills

At the end of Phase 6, can you:

- Negotiate project financing?
- Negotiate profit margins & rates of utility?

Phases to Projects Implementation



7 *The Feasibility Study*

The objective of this phase is to teach participants to:

- Review Utility Submittals on In-Depth Audit
- Finalize List of ECMs
- Verify Accuracy of Estimated Savings and Installation Cost

The Feasibility Study

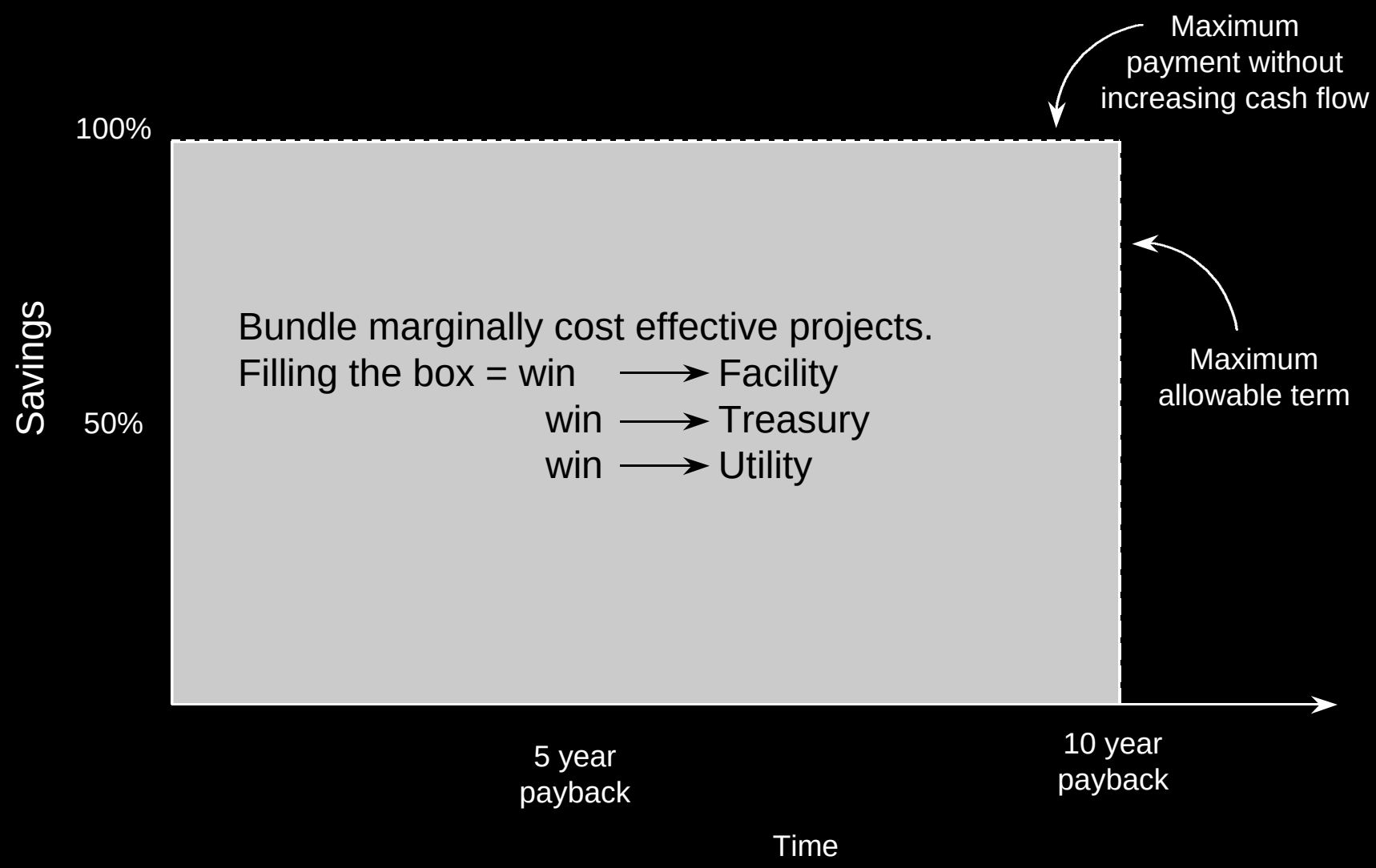
The **feasibility study** assesses both the technical and economic viability of the proposed project.

In-Depth Audit

Audit should include:

- Building physical conditions
- Hours of use or occupancy
- Area of conditioned space
- Inventory of energy-consuming equipment or systems
- Energy-consuming equipment operating conditions and loads
- Baseline weather

“Creamskimming”



Finalize List of ECMs

Any variance between survey findings and an individual ECM assumption shall require the offeror to revise all supporting documentation for each affected ECM in its proposal.

Verify Savings Estimates & Installation Costs

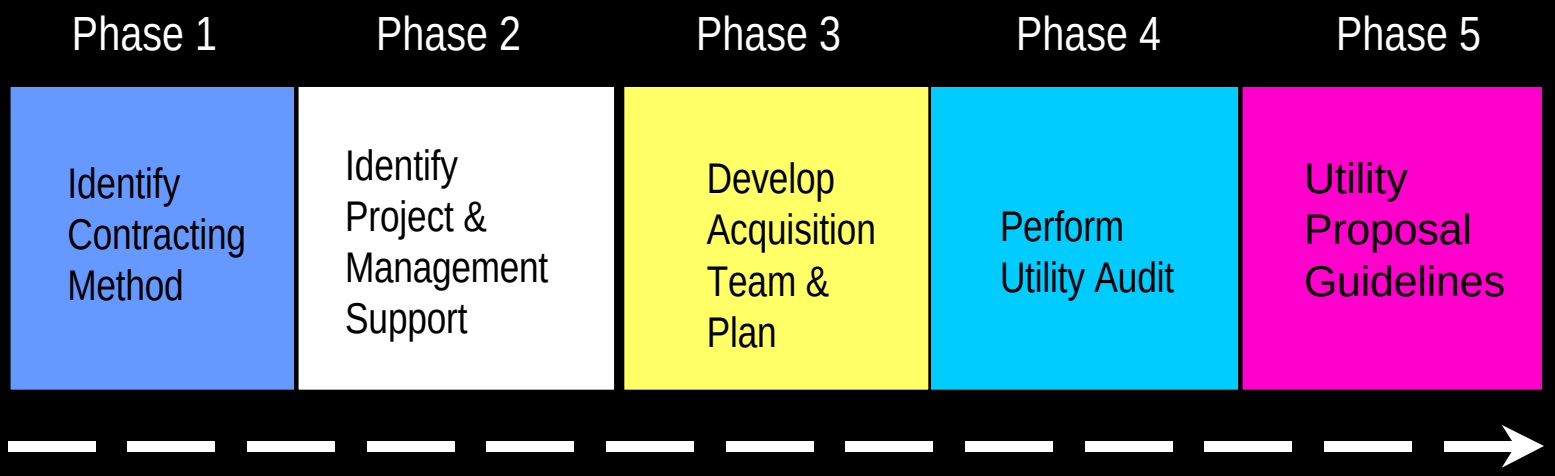
Based on the in-depth energy audit results, the offeror shall verify estimated annual energy savings and resubmit a completed Schedule 1G, reflecting the offeror's guaranteed annual cost savings.

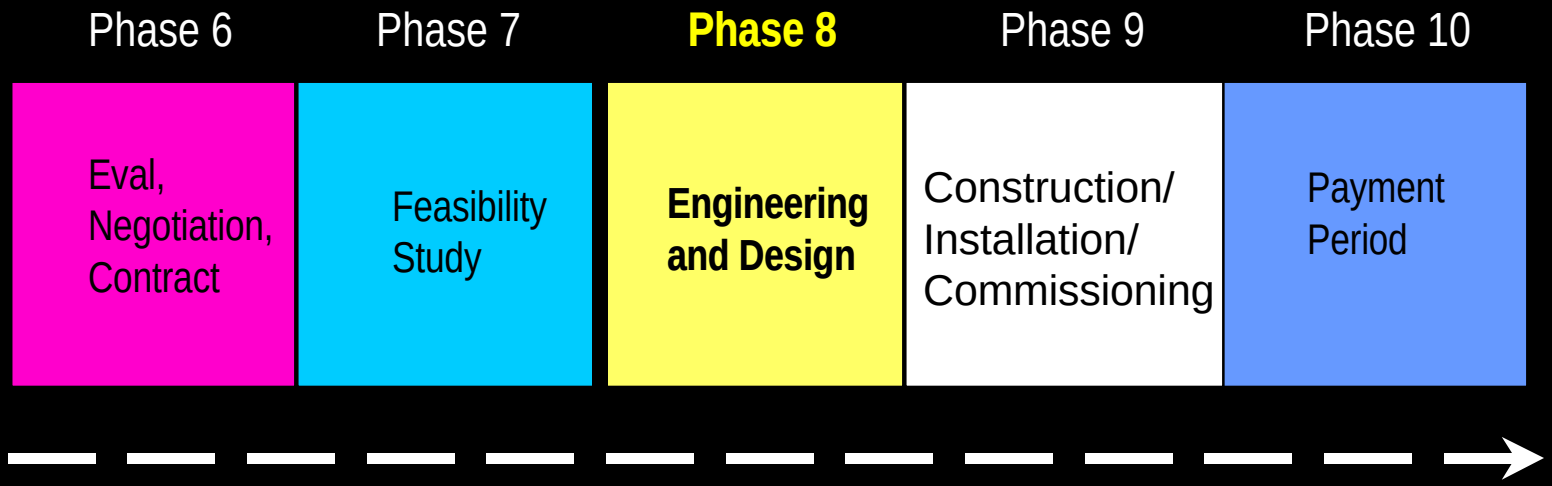
Checklist of Skills

At the end of Phase 7, can you:

- Review utility submittals on in-depth audit?
- Finalize list of ECMs?
- Verify accuracy of estimated savings and installation cost?

Phases to Projects Implementation





8 *Engineering & Design*

The objective of this phase is to teach participants to:

- Review Engineering/Design & Installation Submittals
- Establish Final Installation Plan/Cost
- Establish Final M&V and O&M Plans

Review Eng./Design & Installation Submittals

We recommend that the installation plan include at least the following for each ECM:

1. Manufacturer's Data
2. Shop Drawings
3. Certification of Compliance with Building Codes and Standards (if required)
4. Planned Service Interruptions
5. Site Plan
6. Acquisition of Permits (if required)
7. Installation Schedules

Final M&V and O&M Plans

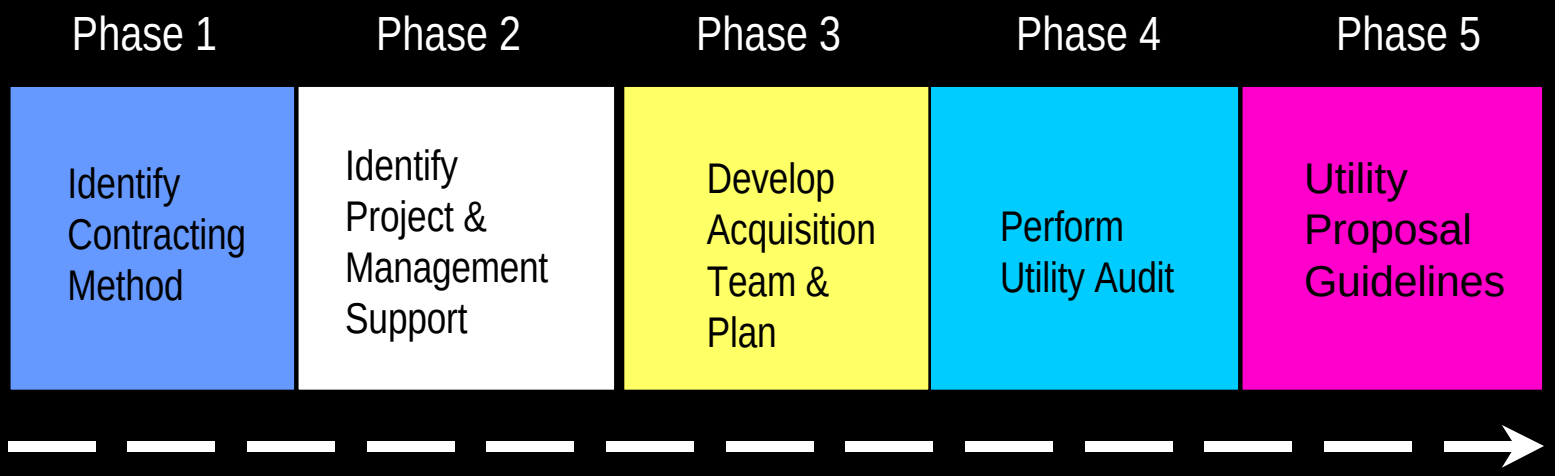
The contractor is required to provide M&V services and continuous O&M of its installed equipment if specified and approved in its technical proposal, which is incorporated into the final contract.

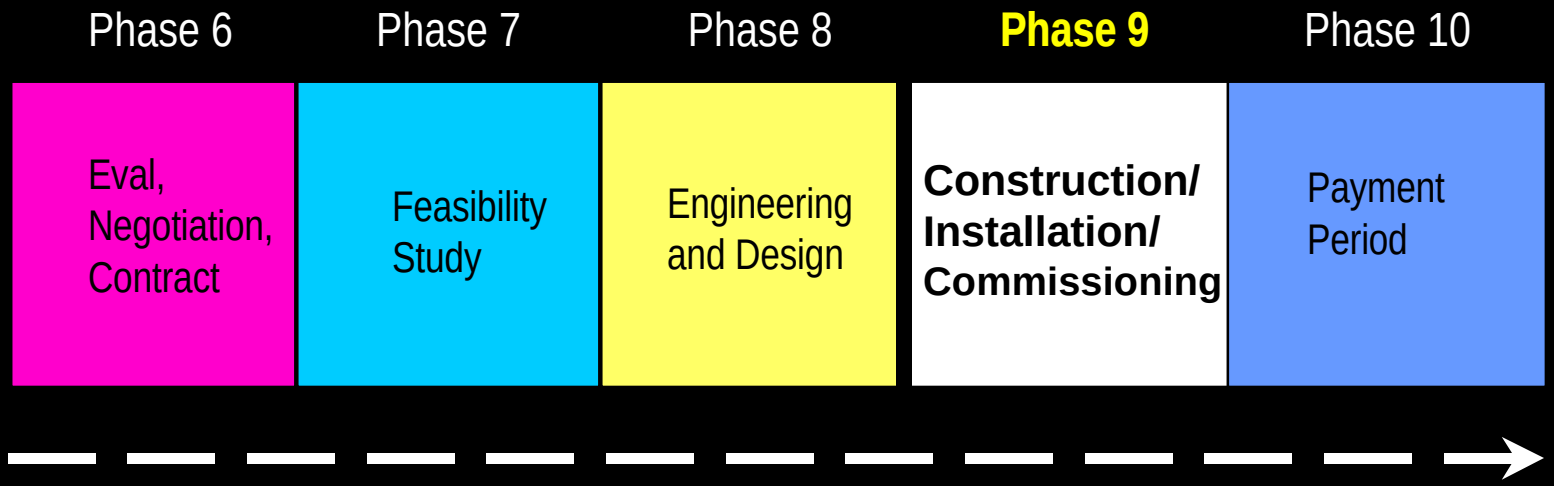
Checklist of Skills

At the end of Phase 8, can you:

- Review Engineering/Design and Installation Submittals?
- Establish Final Installation Plan/Cost?
- Establish Final M&V and O&M Plans?

Phases to Projects Implementation





9 *Construction & Installation*

The objective of this phase is to teach participants how to:

- **Review Final Design and Installation Submittals**
- **Receive Payment and Performance Bonds**
- **Accept Installed ECMs**

Review and Approve Design & Installation Plans

The COTR and other facilities or engineering staff must review and approve the design and installation plans for contract compliance and coordination/scheduling of installation inspection.

Receive Payment & Performance Bonds

Upon request of the CO, the utility shall submit acceptable performance and payment bonds within a specified time frame after approval of ECM installation plans.

Installation

Agency is responsible for monitoring the utility's or subcontractor's progress throughout the ECM installation period to ensure that the work is proceeding as planned.

The utility is responsible for notifying the government when the installation phase is completed.

Commissioning & Acceptance

The government must verify that new equipment was installed properly.

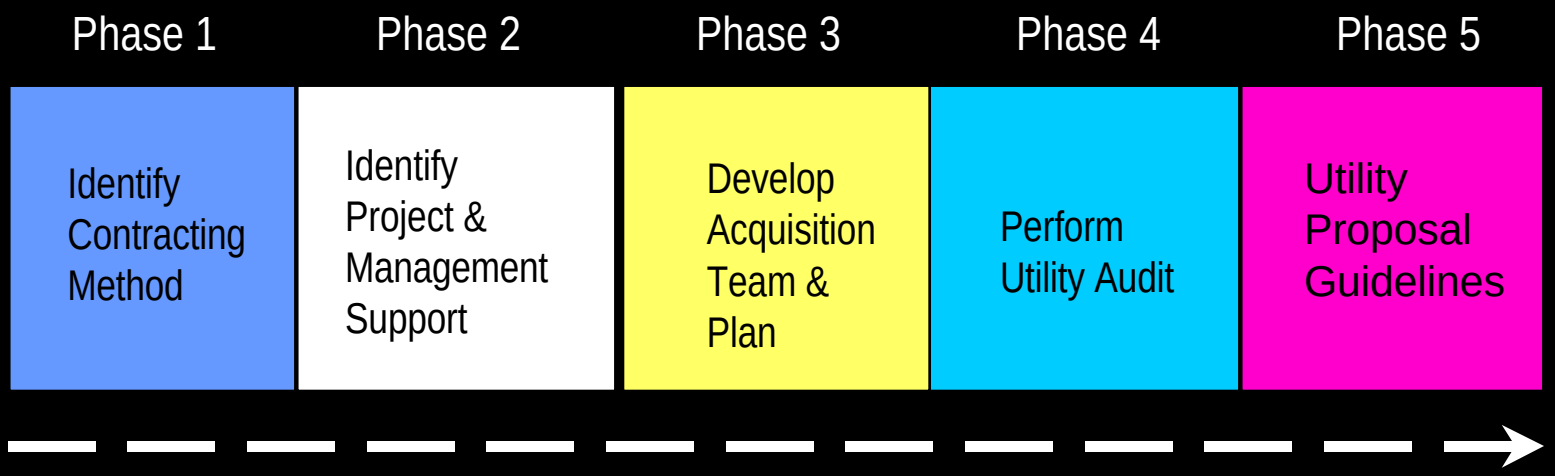
Test equipment prior to acceptance to ensure it is performing to specifications.

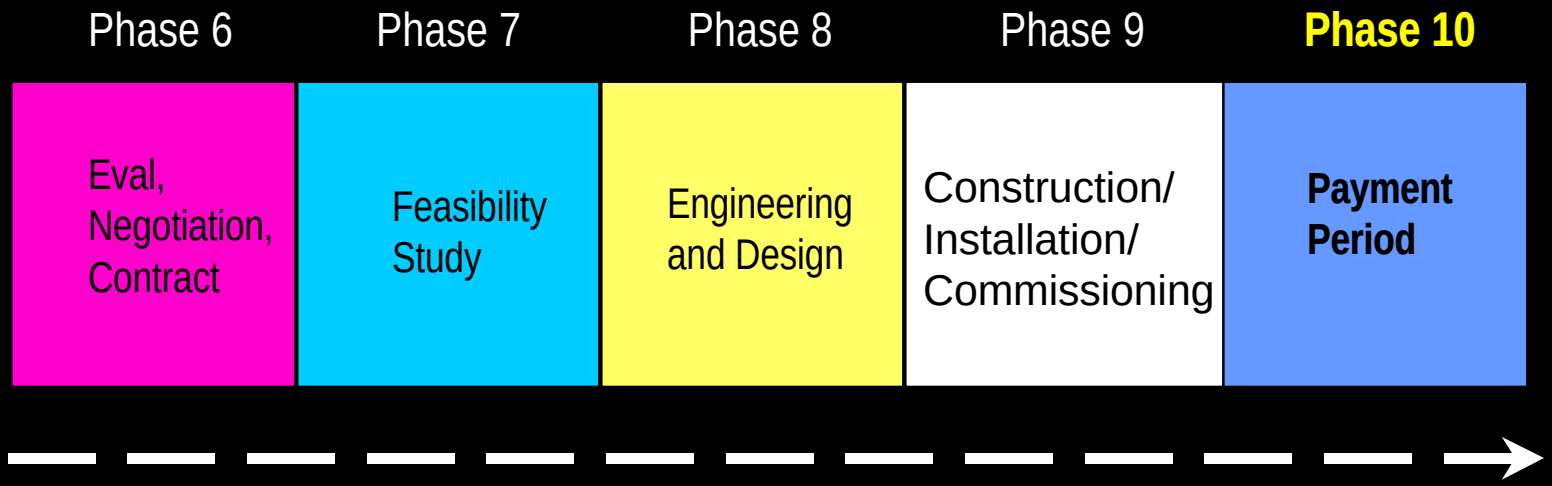
Checklist of Skills

At the end of Phase 9, can you:

- Review Final Design and Installation Submittals?
- Receive Payment and Performance Bonds?
- Accept Installed ECMs?

Phases to Projects Implementation





10 *Payment Period*

The objective of this phase is to teach participants how to:

- Review Post-Installation Documents
- Review and Approve Utility Bills
- Begin Payments
- Conduct Periodic Performance Verification
- Consider Continuous O&M Service Support
- Consider O&M Training
- Consider Post-Contract ECMs

Review Post-Installation Documents

- O&M manuals for installed ECMs
- Inventory of spare parts (e.g., lamps and ballasts)
- As-built drawings or revisions/updates to existing as-builts
- M&V regular interval reports
- Monthly payment invoices

Review and Approve Invoices

Invoices will only be accepted and processed *after* the ECMs have been installed and their initial performance validated and accepted by the government.

Begin Payments

Contracting Officer must notify the utility that the installation has been accepted and complies with the terms of the contract.

Utility bill paid from funding account determined in Phase 3.

Conduct Periodic Performance Verification

After post-installation, verify that the ECMs continue to operate and provide predicted annual energy savings.

O&M Training

Training should be provided to facility management and maintenance personnel as an integral part of ensuring the project's long-term viability.

Consider Post-Award ECM Proposals

Any additional ECMs proposed must be within the contract scope.

Utility shall submit technical and price proposals to the Contracting Officer.

Checklist of Skills

At the end of Phase 10, can you:

- **Review Post-Installation Documents?**
- **Review and Approve Utility Bills?**
- **Begin Payments?**
- **Conduct Periodic Performance Verification?**
- **Consider Continuous O&M Service Support?**
- **Consider O&M Training?**
- **Consider Post-Contract ECMs?**

Case Studies - Lessons Learned

- Energy Champion needed
- All parties should be involved from the beginning, be comfortable with the process

FEMP Information Sources:

- Visit the FEMP Web Site:
  - http://www.eren.doe.gov/femp
    - Training Catalog
    - Choosing a Financing Option Guidance document
- Phone the FEMP Help Desk

  1-800-363-3732
    - Videos
    - Action Kits
    - Publications
    - Case Studies
- Contact FEMP experts directly

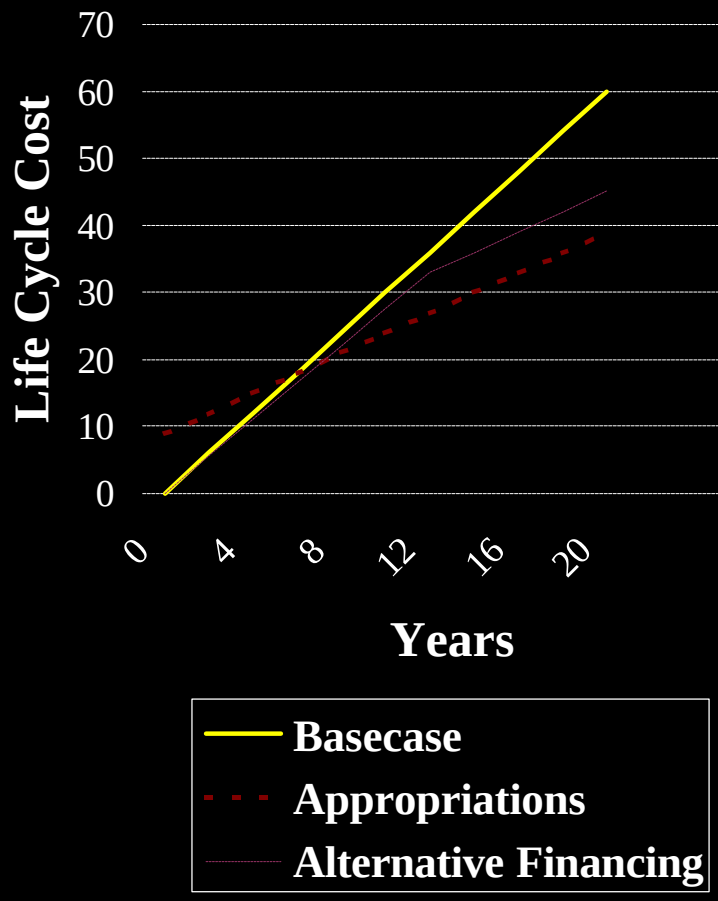
Additional Resources

- FEMP Hotline for workshop information & registration:

  703 243-8343

- FEMP Partner Resource Centers:
  FEMP software, information, & publications

Alternative Financing



- No Capital Investment by Government
- Criteria for Viable Project:
  - Payments less than Savings
  - Acceptable interest rate for investors
- Same economic assumptions and procedure, with payments as future costs to calculate LCC

Energy Savings Performance Contracts

- ➜ *Site Specific ESPC*
- ➜ *Army Regional ESPC*
- ➜ *Regional Super ESPC*
- ➜ *Technology Specific ESPC*
- ➜ *Agency Specific ESPC*

Legislative Authorities

(Codified as 42 USC 8287, 1992 Energy Policy Act)

- Notify Congress 30 days before awarding contracts in excess of $750,000
- Funds must be available to cover ESPC payment in first fiscal year
- Allows DOE to establish a pre-qualified list

  (DoD has their own list)
- Unsolicited proposals may be considered
- 10 CFR 436 - Rule contains implementation methods and procedures (issued 4/10/95). If FAR conflicts, 10 CFR 436 rules.
- Original sunset 4/9/2000. Extended to 10/1/2003 (per FY 99 Appropriations bill, 11/98, P.L. 105-388)

ESPC Options

Site Specific ESPC

- Site Specific contract includes all T&Cs
- Any agency can put one in place
- Always available as an option
- No additional DO/TO required but can be set up as a site IDIQ
- Status/Example:
  - VA - West Haven, CT

ESPC Options

Army Huntsville Area-wide ESPC

- Army Corp of Engineers put in place
- Regional umbrella contract
- Any Federal, State, or local govt. can use
- Indefinite Delivery Indefinite Quantity (IDIQ) contract
- Specific project DO/TO issued
- Status/Example:
  - Two Army Area-wide Contracts exist covering all 50 states at this time.

ESPC Options

Regional Super ESPC

- DOE puts in place
- Regional umbrella contract
- Available to all agencies
- Indefinite Delivery Indefinite Quantity (IDIQ) contract
- Specific project DO/TO issued
- Status/Example:
  - 6 Regional Super ESPCs Awarded (Mid-Atlantic and Northeast awarded in March 1999)

ESPC Options

Technology Specific Super ESPC

- DOE puts in place
- Nationwide umbrella contract
- Available to all agencies
- Indefinite Delivery Indefinite Quantity (IDIQ) contract with specific technology requirements
- Specific project DO/TO issued
- Status/Example:
  - In Place: Solar Trough, PV, Geothermal Heat Pump
  - Coming Soon: Solar Hot Water, Solar Ventilation Pre-Heat (“Solar Wall”), CFC-free Chillers

ESPC Options

Agency Specific ESPC

- Any agency can put in place
- Nationwide or regional umbrella contract
- Tailored to a specific agency
- Indefinite Delivery Indefinite Quantity (IDIQ) contract
- Specific project DO/TO issued
- Status/Example:
  - 6 Regional Air Force contracts

ESPC/Super ESPC/Utility Contracts

Features	**Utility Contract**	**ESPC/SUPER ESPC**
Authorities	10 USC 2865 42 USC 8256 48 CFR 16 & 41	10 USC 2865 42 USC 8287 10 CFR 436
Prime Contractor	Utility Company	ESCO
Term	10 year maximum	25 year maximum
Guaranteed Performance	Govt. may request	Required
M&V/Annual Audit	Govt. may request	Required
Operation & Maintenance	Govt. may request	O&M typically included

ESPC/Super ESPC vs Utility Contracts

Features	**Utility Contract**	**ESPC/SUPER ESPC**
Competition	Exemption from CICA through Established source	CICA applies - CBD & source selection per 10 CFR 436.33 (Super ESPC satisfies CICA)
Congressional Notification	Recommended	Required if over $750,000
Payment	Utility bill	Monthly invoice
Qualified Contractor List	Not required	Required
Regulatory Oversight	Regulated body	Not required

Pros and Cons of ESPC

PROS

- Competitive process
- Guaranteed Savings
- Pre-qualified List
- Places Risk on Contractor
- Rule is established / requirements & procedure is defined
- Up to 25 year term

CONS

- Source Selection Process Required
- Time and Resource Intensive Process
- Guaranteed Savings & M&V can add cost due to additional contractor risk
- Subcontractors not required to be competitively selected

Pros and Cons of IDIQ ESPCs

PROS

- Competitive Initial Process
- Guaranteed Savings
- Multiple Contractors (depends on vehicle)
- Streamlined Selection Process
- No CBD Required
- Many terms and conditions pre-set

CONS

- Limited competition process can add time and resource requirements
- Using someone else's contract
- May have to pay to use contract
- Guaranteed Savings & M&V can add cost due to additional contractor risk

Pros and Cons of UESCs

PROS

- Established Source - Eliminate selection process reducing time & resources needed
- Long-standing relationship with entity
- Flexibility - Guarantee & M&V not required
- Commission oversight

CONS

- Loss of initial competition
- Close scrutiny of proposal required
- Guarantee & M&V may not be offered by utility
- Procedure is not clearly defined in policy
- Must address use of subsidiaries and subcontractor selection

Key Issues in Choosing a Financing Option

- Location
- Competition
- Contract Term
- Scope Definition
- M&V
- O&M
- Agency Resource Requirements
- Guaranteed Savings
- Source of Services
- Project Size
- Other Considerations

Facility Specific Considerations

- Location
  - IDIQ ESPC Available?
  - Utility Financing Program available?
- Competition
  - Agency does:
    - ESPC - Full Competition
    - IDIQ ESPC - Limited or no competition
    - UESC - competition at subcontractor level
- Project Size
  - Administrator Cost
  - Private Sector Interest

Facility Specific Considerations

Guaranteed Performance / Savings

- Risk Adverse Management
- Level of Risk in Measures

Measurement & Verification

- Verification for guaranteed payment
- Verification for accountability to site

Operation & Maintenance

- Ensure needed O&M is done on equipment to maintain savings stream

Facility Specific Considerations

- Agency Resource Requirements
  - Tied to level of competition Agency must do
  - Ability to fund other sources to assist
- Scope Definition
  - Defined scope or unknown scope
  - Multiple measures with integrated savings vs. single measure in one building
- Source of Services
  - ESPC - Pre-qualified List
  - IDIQ ESPC - pre-awarded list
  - UESC - Serving, regulated utility

Facility Specific Considerations

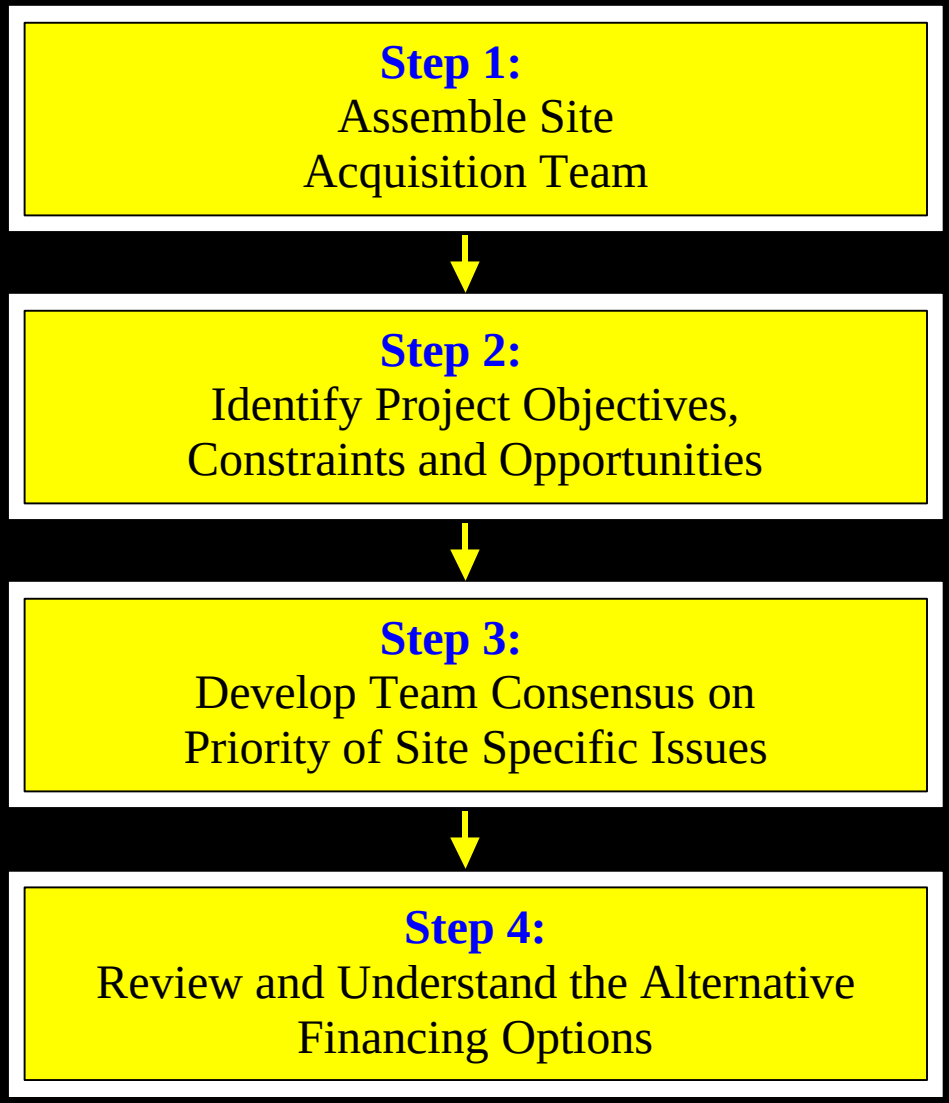
Contract Term

- 10 years
- 25 years

Other Considerations

- restructuring impacts
- mission changes
- base closure
- privatization
- infrastructure needs

How To Choose Process



How To Choose Process